

THE EXPERIENCES OF ADOLESCENT MOTHERS ON PROVIDING CONTINUOUS KANGAROO MOTHER CARE TO THEIR INFANTS IN A HOSPITAL.

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DECLARATION

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ABSTRACT

Background

Kangaroo mother care (KMC) is the practice of skin-to-skin contact between an infant and parent and was introduced as a complementary approach to neonatal intensive care for low birth weight and premature infants. KMC has been shown to reduce infant mortality, decrease illness, decrease infection and the length of stay in hospital for infants. The most frequently reported complication of adolescent pregnancy is preterm labour. Adolescents are thus at high risk of having to provide KMC to their infants and may have difficulty in caring for an infant. The adolescent mother therefore requires support while providing KMC. The aim of this study was to explore the experiences of adolescent mothers on providing kangaroo mother care to their infants in a hospital.

Methods

A qualitative approach with a descriptive phenomenological design was used to explore the experiences of adolescent mothers aged 15 to 19 years on providing kangaroo mother care to their infants in a hospital. The study applied purposive sampling to select participants from Karl Bremer and Tygerberg hospitals in the Western Cape. The Health Research Ethics Committee of Stellenbosch University, Tygerberg Hospital and the Department of Health of the Western Cape granted permission to conduct the study. Ten individual semi-structured interviews were conducted, transcribed and analyzed using Colaizzi's framework.

Findings

The themes that emerged were: Becoming and being a mother; KMC: Being cared for and caring for; and Ineffectual support. The adolescent mothers had to adapt to many changes throughout pregnancy, labour, post-delivery and when providing KMC. The adolescent mothers were all shocked and disappointed about the pregnancy but narrated that they had to accept the pregnancy and later accepted motherhood after they have gained self confidence in caring for their infants. They all received information on how to practice KMC. However, they had not received any information about the benefits of KMC and the specific care of a preterm infant. Interactions with the other mothers in the ward were amicable and supportive. Interactions with the doctors and nurses were formal and were only directed at the care of the infant. Occasionally interactions between the adolescent mothers and the nurses were incompatible. Care and support was provided for the infant but was lacking for the mother. The mothers did not receive any physical support despite still being in the postnatal period. Social support was provided to the adolescent mothers who were referred to the social worker. They received some discharge support but it was only focused on the care of the infant.

Conclusion

The findings demonstrated that adolescent mothers providing KMC to their infants in a KMC ward in a hospital lack the understanding of KMC, its benefits and the specific care of a preterm infant. The focus of care should not only be on the infant, but also on the adolescent mother. These mothers require continuous information and holistic support to develop their skills and confidence to provide effective care for their infants while in the KMC ward, but also for when they are discharged home.

Key words

Adolescent, kangaroo mother care, preterm infant, experiences

OPSOMMING

Agtergrond

Kangaroo moedersorg (KMC) is die praktyk van vel-tot-vel kontak tussen 'n baba en ouer en is bekend gestel as 'n aanvullende benadering tot neonatale intensiewe sorg vir lae geboortegewig en premature babas. Daar is bewyse dat KMC die voorkoms van kindersterftes, siekte, infeksie en die lengte van hospitaaltoelating vir babas verminder. Die mees algemene komplikasie van adolessente swangerskap is premature kraam. Adolessente het dus 'n hoë risiko om KMC aan hul babas te voorsien en hulle mag dit dalk moeilik vind om 'n baba te versorg. Die adolessente moeder benodig dus ondersteuning terwyl sy KMC verskaf. Die doel van hierdie studie was om die ervarings van adolessente moeders aangaande die kangaroo moedersorg wat hulle aan hul babas in 'n hospitaal verskaf te ondersoek.

Metode

'n Kwalitatiewe benadering met 'n beskrywende fenomenologiese ontwerp is gebruik om die ervarings van adolessente moeders te ondersoek wie kangaroo moedersorg aan hul babas in 'n hospitaal verskaf. Die studie het doelgerigte steekproefneming aangewend om deelnemers uit Karl Bremer en Tygerberg hospitale in die Wes-Kaap te kies. Die Gesondheidsnavorsing Etiek Komitee van die Universiteit Stellenbosch, Tygerberg Hospitaal en die Wes-Kaapse Departement van Gesondheid het toestemming verleen om die studie te verrig. Tien individuele semi-gestruktureerde onderhoude is uitgevoer, getranskribeer en geanaliseer met behulp van Colaizzi se raamwerk.

Resultate

Die temas wat na vore gekom het, was: Om 'n ma te word en te wees; KMC: Omgee vir en omgee; en Ondoeltreffende ondersteuning. Die adolessente moeders moes aanpas by veranderings gedurende die swangerskap, kraam, nageboorte en wanneer hulle KMC verskaf het. Die adolessente moeders was almal geskok en teleurgesteld oor die swangerskap, maar het vertel dat hulle die swangerskap moes aanvaar en dat hulle later moederskap aanvaar het nadat hulle selfvertroue ontwikkel het om hul babas te versorg. Hulle het almal inligting ontvang oor hoe om KMC te beoefen. Hulle het egter nie inligting ontvang oor die voordele van KMC en die spesifieke versorging van 'n premature baba nie. Interaksies met die ander moeders in die saal was vriendelik en ondersteunend. Interaksies met die dokters en verpleegsters was formeel en was slegs gerig op die versorging van die baba. Sommige interaksies tussen die adolessente moeders en die verpleegsters was onversoenbaar. Sorg en ondersteuning is vir die baba voorsien, maar was nie vir die moeder voorsien nie. Die moeders het geen fisiese ondersteuning ontvang nie, hoewel hulle nog in

die nageboorte tydperk was. Maatskaplike ondersteuning is voorsien aan die adolessente moeders wat na die maatskaplike werker verwys is. Hulle het 'n mate van ontslag ondersteuning ontvang, maar dit was slegs gefokus op die versorging van die baba.

Slotsom

Die bevindings het getoon dat adolessente moeders wat KMC aan hul kinders in 'n KMC saal in 'n hospitaal voorsien nie die begrip van KMC, die voordele en die spesifieke versorging van 'n premature baba het nie. Die fokus van sorg moet nie net op die baba wees nie, maar ook op die adolessente moeder. Hierdie moeders benodig deurlopende inligting en holistiese ondersteuning om hul vaardighede en vertroue te ontwikkel om effektief te sorg vir hul babas terwyl hulle in die KMC saal is, maar ook wanneer hulle ontslaan word.

Sleutelwoorde

Adolessente, kangaroo moederversorging, premature babas, ervarings

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ABBREVIATIONS

KMC Kangaroo Mother Care

WHO World Health Organization

CHAPTER ONE

FOUNDATION OF THE STUDY

1.1 INTRODUCTION

Kangaroo mother care (KMC) is the practice of skin-to-skin contact between an infant and parent and was introduced for low birth weight and premature infants (Jeffries, 2012:141). Adolescent pregnancy is considered a high-risk pregnancy that could result in a preterm or low birth weight infant (Chibber, Fouda, Hijji, Al-Dossary, Sadeq, Amen, Shishtawy & Tasneem, 2014:297). Adolescent mothers are thus at risk when required to provide KMC to their infants. The interactions of adolescent mothers with their infants have been characterized as being less responsive, less verbally communicative and less emotional towards their infants than adult mothers (Emery, Paquette & Bigras, 2008:66).

Thus, adolescent mothers who provide KMC may require more support and education for providing KMC to their infants and before they are discharged.

1.2 SIGNIFICANCE

In 2016 in South Africa, 0.4% of births were to adolescents aged ten to 14 years and 13, 5% were to adolescents aged 15 to 19 years (Statistics South Africa 2017:8) . The number of births are reported to the District Health Information System and to The Perinatal Prevention Identification Programme (PPIP). The PPIP has published The Saving babies 2012-2013: Ninth report on perinatal care in South Africa in 2014. This report indicates that from 1st January 2012 to 31st December 2013, 181549 births were reported on the PPIP in the Western Cape. Seven percent of these births were preterm births infants with a birthweight of less than 2000g (Savings babies 2012-2013 Ninth report, 2014:2).The number of preterm births per adolescent is not a health information indicator.

Adolescent pregnancy is associated with foetal complications, which includes preterm birth and low birth weight infants (Chibber, et al., 2014:297). Caring for a premature or low birth weight infant may pose several challenges to adolescent mothers because the adolescent mother has to cope with the developmental changes of both becoming an adult and motherhood (Figueiredo, Tendias & Dias, 2014:194). Premature infants born to adolescent mothers have a higher risk of rehospitalisation and emergency department visits than infants born to adult mothers (Ray, Escobar & Lorch, 2010:305).

Adolescent mothers will therefore require support when in hospital so that their babies are not readmitted with serious illnesses, which could result in the increase of infant morbidity and mortality.

1.3 RATIONALE

The three main components of KMC are skin-to-skin positioning against a mother's or caregiver's chest, exclusive breastmilk feeding as much and as long as possible and early discharge and ambulatory care with regular follow-up visits to a healthcare facility (Bergh, de Graft-Johnson, Khadka, Om'Iniabohs, Udani, Pratomo & De Leon-Mendoza, 2016:2). The mother and baby are discharged as soon as the mother is able to care for and feed her infant regardless of weight gain (Jeffries, 2012:141).

In 2010, while studying Advanced Midwifery and Neonatal Nursing, the researcher was allocated to the KMC ward in a hospital in Cape Town. The researcher observed that KMC was followed, but the mother and infant were discharged when the infant had reached a weight of 1800 grams or more (Cloete, 2014:1). The mothers and their infants are admitted to the KMC ward and are expected to provide continuous KMC to their infants. The practice of KMC for more than 20 hours per day is known as continuous KMC (Bergh, et al., 2016:2). Intermittent KMC is performed when an infant is in an incubator and the mother provides KMC when she visits her infant (Western Cape Department of Health, 2011:34). The researcher observed that while providing continuous KMC, the mothers received very little physical, emotional and social support.

In Iran (Valizadeh, Ajoodaniyan, Namnabati, Zamanzadeh & Layegh, 2012:38), Brazil (Veras & Traverso-Yeppez, 2011:84), Australia (Chia, Sellick & Gan, 2006:20) and in South Africa (Solomons & Rosant, 2012:33-39), it was found that nurses play an important role in creating a supportive environment for mothers providing KMC. However, the literature concludes that nurses were often not trained and the nurses felt that they could not provide adequate support to mothers who provide KMC to their infants. Studies were conducted in Sweden by Blomqvist and Nyqvist (2010:1472-1476), in Brazil by Johnson (2007:570-572) and in South Africa by Solomons and Rosant (2012:33-39) to explore the experiences of mothers providing KMC. These studies found that the mothers felt that the nursing staff were not being supportive to their needs and furthermore, the mothers felt that the nursing staff should provide more education on KMC.

The combination of adolescence and parenthood, which are both considered a developmental crises, may negatively affect the maternal-infant bond (Figueiredo, et al., 2014:194). The adolescent mother, who is more likely to have her first experience of motherhood, has to be supported to ensure that she is able to provide the necessary care for her preterm infant. By exploring the experiences of adolescent mothers on providing KMC to their preterm infants, this study allowed the researcher to identify and describe the physical, emotional and social support that adolescent mothers receive and require while in the KMC ward and when discharged.

1.4 PROBLEM STATEMENT

The interactions of adolescent mothers with their infants have been characterized as being less responsive (Emery, et al., 2008:66). During KMC, mothers have to be responsive to their infants to observe the cues of the infant and provide the necessary care based on these cues (Johnson, 2007:572). The adolescent mother, who may be inexperienced and immature, has to be supported to ensure that she is able to recognize infant cues and provide the necessary care for her infant.

Pregnancy during adolescence could involve not only medical but also psychosocial problems. These problems include young gynaecological age, physiological and emotional immaturity, possibly low socioeconomic level and possibly lack of social support (Kirbas, Gulerman & Daglar, 2016:369). The adolescent mother is also more likely to be unmarried and the pregnancy may be unplanned (Kirbas, et al., 2016:369). In addition, women who become pregnant as adolescents are more likely to have engaged in alcohol and/or drug use (Chapman & Wu, 2013:2).

The WHO practical guide for KMC describes the components that are necessary for the implementation of an effective KMC program. These are the implementation of the policy, the mother, personnel with specific skills and knowledge and the creation of a supportive environment. The personnel should be trained in breastfeeding and all facets of KMC to be able to empower the mothers. A supportive and comfortable environment for the mothers should be established that caters for all their basic needs (WHO 2003:11). They should also receive educational and recreational activities to reduce the frustration of being away from home. Furthermore, the mothers should be fully supported by the health workers while gradually taking over the responsibility for the care of their infants (WHO, 2003:13). This can be achieved by educating the mothers about KMC, providing physical, emotional, social and discharge support. The Western Cape KMC policy and guideline acknowledges that mothers who provide KMC require physical and emotional support. Pre discharge planning should be performed and mothers who provide KMC should be assessed by a social worker and the infant should be referred for follow up care after discharge (Western Cape Department of Health, 2011: 20).

The researcher observed that ineffective support is provided to the adolescent mothers while providing continuous KMC to their infants. Consequently, the adolescent mothers may not be able to provide adequate support to their infants while in hospital and for when discharged.

1.5 RESEARCH QUESTION

What were the experiences of adolescent mothers on providing continuous kangaroo mother care to their preterm infants in a kangaroo mother care ward in a hospital?

1.6 RESEARCH AIM

The aim was to explore the experiences of adolescent mothers aged 15 to 19 years on providing continuous kangaroo mother care to their preterm infants in a kangaroo mother care ward in a hospital.

1.7 RESEARCH OBJECTIVES

The objectives were to:

RO 1: Explore the adolescent mothers' understanding of KMC.

RO 2: Understand the experiences of adolescent mothers while providing continuous KMC to their infants.

RO 3: Describe the physical, emotional and social support adolescent mothers experience while providing continuous KMC to their infants in a hospital.

RO 4: Identify the physical, emotional and social support needs of adolescents before they are discharged from the KMC ward.

1.8 RESEARCH METHODOLOGY

The research methodology will be briefly discussed in this chapter. A qualitative research methodology was used for this research study. Qualitative research is often described as a naturalistic, descriptive approach, concerned with exploring the perspectives and experiences of participants (Richie, Lewis, McNaughton, Nicholls & Ormston, 2014:3). A more detailed discussion will be provided in chapter three.

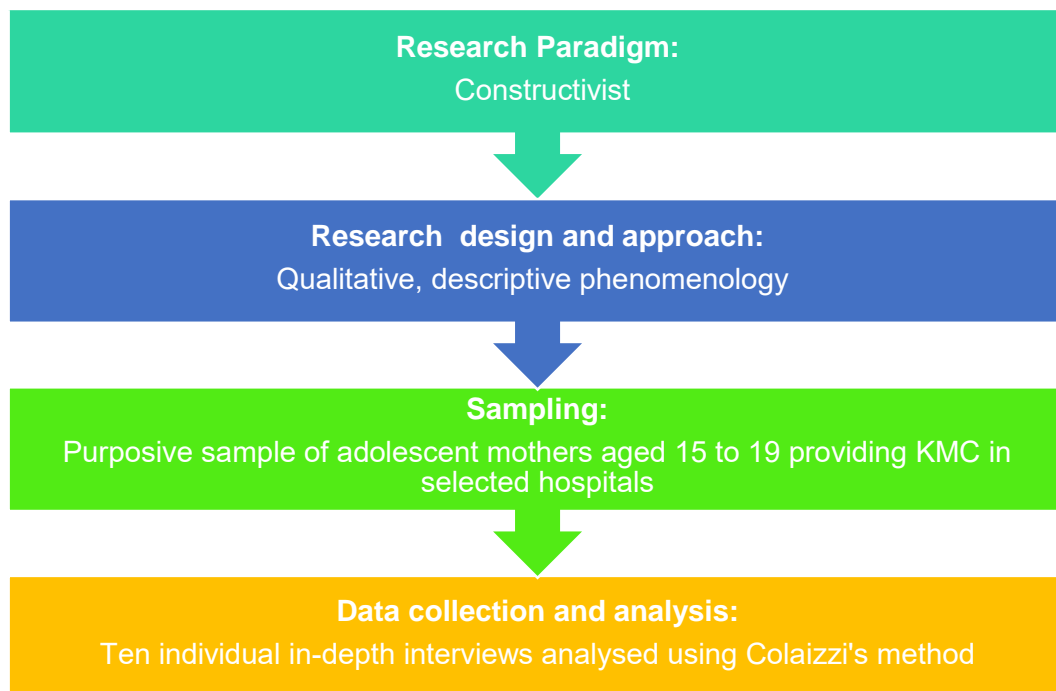


Figure 1.1 Overview of research methodology

1.8.1 Research paradigm

A paradigm is a worldview and is characterized the way in which the paradigm responds to basic philosophical questions. These questions are regarding the nature of reality and the interaction between the researcher and participants (Polit & Beck, 2017:9). The research paradigm for this study is constructivist. Constructivism asserts that reality is not fixed, but is a construction of the individuals participating in a research study. Reality exists within a context and many constructions are possible. Findings within the constructivist paradigm result from the interaction between the researcher and the participants. The description of the participants' experiences allows the researcher to understand the phenomena (Polit & Beck, 2017:11). Qualitative research is associated with the constructivist paradigm. It is within the constructivist paradigm that the researcher was able to describe the experiences of the adolescent mothers through their interpretations of providing KMC.

1.8.2 Research design

The descriptive phenomenological research design was the most appropriate approach to achieve the aims and objectives of this study. The descriptive phenomenological research design allowed the adolescent mothers, in an in-depth interview, to explain the meaning of their experiences in providing KMC to their infants (Lopez & Willis, 2004:727).

1.8.3 Study setting

The study was conducted in the KMC wards in Karl Bremer and Tygerberg Hospitals. These hospitals are situated in Cape Town, in the Tygerberg sub-district of the Cape Metropole of the Western Cape (Figure 1.2 and 1.3 below).



Figure 1.2: Map of the Western Cape Municipalities (Republic of South Africa 2017:1)

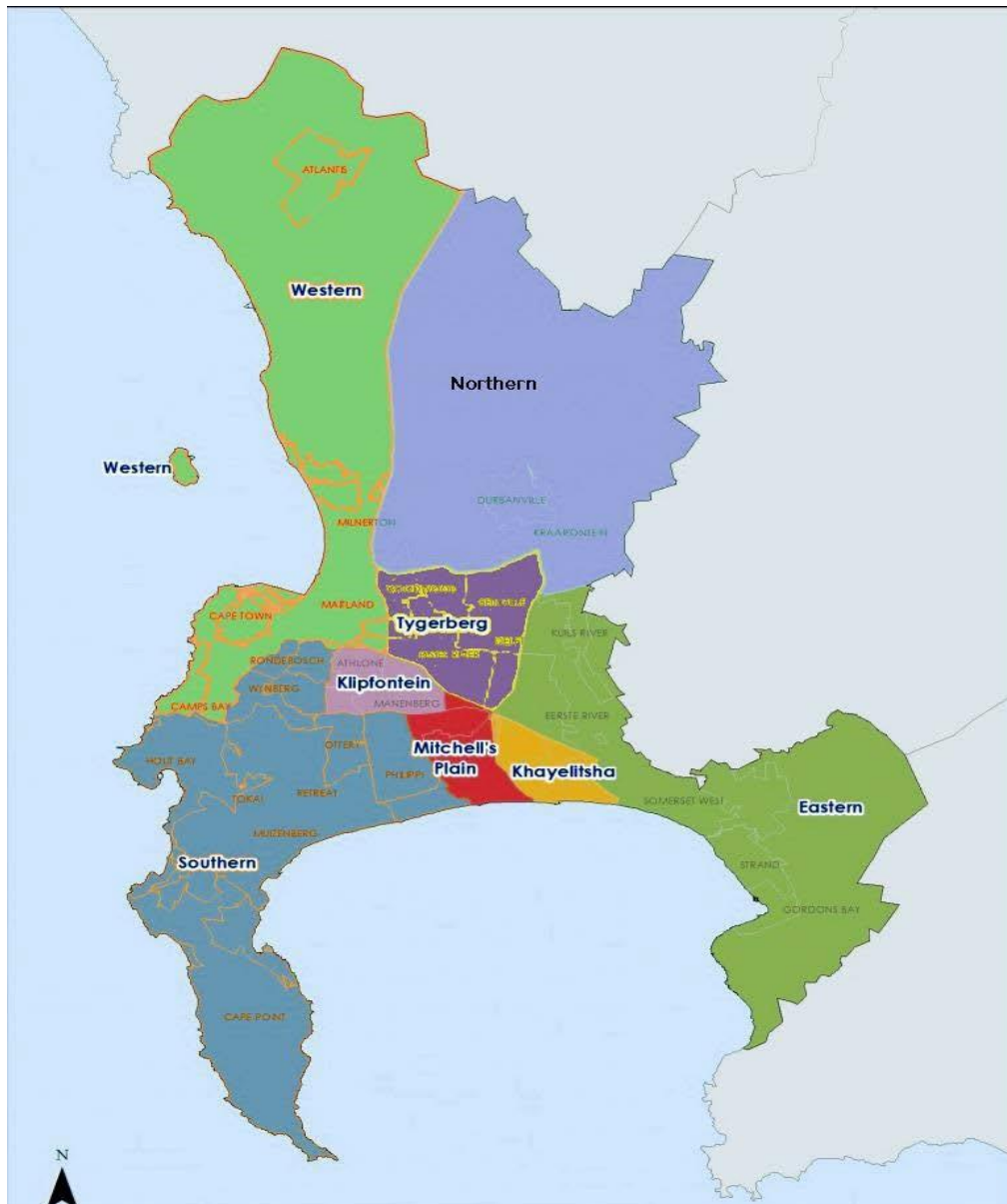


Figure 1.3: Map of Health sub-districts in the Cape Town Metropole (Gebhardt, 2016:8)

1.8.4 Study population and sampling

The population was adolescent mothers who had been admitted to the KMC wards at Karl Bremer and Tygerberg Hospitals to provide continuous KMC to their infants. Within the Tygerberg health sub district, the adolescent mothers are referred from Tygerberg hospital to the nearest district hospital when the baby reaches a weight of 1500g. Karl Bremer hospital is the only district hospital in the Tygerberg sub-district. Adolescents who had experienced birth complications, who required additional medical, physical and psychological support and who provided intermittent KMC to their infants were excluded from the study.

The focus of the study was on the older adolescents aged 15-19 years who had been admitted to the KMC wards for a minimum of five days. Ten adolescent mothers were selected for the study using purposive sampling.

1.8.5 Data collection tool

A semi-structured interview guide was used for each participant and was based on the research objectives. The interview guide was drawn up in the three main languages of the geographical area, namely, English, Afrikaans and isiXhosa. Interviews were initiated with open-ended questions and followed by probing questions. An example of the interview guide is provided in Appendix A.

1.8.6 Pilot interview

The researcher had conducted one interview with an adolescent mother as per the inclusion criteria to ensure that questions were clear and to refine her interview skills. The study supervisor assessed the quality of her interview skills and provided guidance. The pilot interview was included in the data analysis.

1.8.7 Rigour of study

The goal of rigour in qualitative research is the accurate representation of the experiences of participants. The researcher pursued to satisfy the four criteria of credibility, dependability, confirmability and transferability (Shenton, 2004: 63). These principles are discussed in chapter three.

1.8.8 Data collection

Data collection occurred through individual interviews, using a semi-structured interview guide. The venue and time for the interview was according to the participant's preference and did not disrupt the normal ward routine. Interviews were conducted in a private, quiet room at the respective hospitals. The researcher performed the English and Afrikaans interviews. The isiXhosa-speaking participants were all fluent in English, thus the researcher performed the interviews. The interviews were between 30 minutes and 80 minutes in duration. After each interview, the researcher documented in a reflective journal additional perceptions and recollections from the interview (Cypress, 2017:258). Data was collected over a period of 20 weeks.

1.8.9 Data analysis

Audio recordings were transcribed verbatim. Colaizzi's (1978) phenomenological method of data analysis was used to analyse the data (Mackenzie, 2009:27).

1.9 ETHICAL CONSIDERATIONS

Research ethics involves ethical and legal considerations to ensure that participants are protected. The Declaration of Helsinki was drafted to provide guidelines for the ethical conduct of research. This study incorporated the ethical principles involving human subjects (World Medical Association Declaration of Helsinki, 2013). These principles are autonomy, privacy, confidentiality, beneficence, non-maleficence and justice.

Prior to conducting the research study, approval for the study was obtained from the Human Research Ethics Committee (HREC) of Stellenbosch University (protocol number: S16/07/112). Permission was further obtained from Tygerberg Hospital and the Provincial Research Committee, Metro District Health Services in which Karl Bremer is situated (reference: WC- 2016RP40-442). A copy of all the approval letters is presented in the appendices.

1.9.1 Autonomy

All participants should be treated as autonomous agents who are capable of self-determination (Grove, Burns & Gray, 2013:164). Participation in the study occurred following written informed consent from the participants.

Informed consent was based on the disclosure of all essential information concerning the study. The participant were required to display understanding and comprehension of information provided to them, as well as competence in being able to make a decision to participate in the study. It was clearly stated in the consent form that participation was voluntary and that the participant could withdraw at any time.

No covert data collection occurred. Covert data collection is when participants are unaware that they are part of a research study (Grove, et al., 2013:164). Deception is the act of misinforming participants for research purposes (Grove, et al., 2013:165). Informed consent was based on the disclosure of all essential information concerning the study to avoid deception.

Diminished autonomy is when certain persons are vulnerable (Grove et al., 2013:165). In general, children and adolescents are viewed as vulnerable population groups. However, the Children's Act 38 of 2005 (Republic of South Africa, 2005:90) stipulates that the adolescent mother who is between 12 and 18 years old may consent to medical treatment for herself or her child. Sufficient maturity and the mental capacity to understand the benefits, risks, social and other implications of the treatment is required. Since a parent or legal guardian may not accompany adolescents who are admitted in the KMC ward, permission was obtained from

the Health Research Ethics Committee at Stellenbosch University to obtain informed consent from the adolescent mother to participate in the research study and wave parental consent.

1.9.2 Privacy

Privacy is defined as the right to determine the time, extent and circumstances when personal information is shared or withheld (Grove et al., 2013:165). The participants' right to privacy was maintained by allocating numbers to the participants and the data collected does not reflect any personal details of the participants.

The researcher had requested the use of a private room for the interviews at the hospitals when applying for permission to conduct the study. The participants received refreshments at the interviews and each participant received a hamper with baby products to the value of R50,00 as reimbursement for their time.

The researcher is a registered nurse employed as a lecturer at the Tygerberg campus of Stellenbosch University. The researcher had no prior contact with the participants while they were admitted in the hospitals. The researcher performed the interviews in casual clothes, to avoid the participants feeling intimidated or coerced into participating in the study.

1.9.3 Confidentiality

Confidentiality is the providing of standards to protect the access, control and dissemination of personal information (Cobban, Edgington & Pimlott, 2008:235). Confidentiality was ensured by allocating numbers to all participants and the audio recordings and transcripts do not reflect any personal details of the participants. For the duration of the research study, all participants were referred to by an individually allocated numerical code.

The researcher was the only person who had access to the names of the participants. The researcher stored all the audiotapes and written copies of the research study in a locked cupboard in a secure location. Electronic copies of the research study are password protected. All audio recordings and copies of the research study will be securely stored for at least 5 years.

1.9.4 Beneficence and non-maleficence

Beneficence refers to doing good and non-maleficence is to ensure that participants are not harmed (Moodley, 2011:57:63). Participants were protected from any harm by informing the participants that they may exit the study at any time that they felt discomfort and participants were encouraged to verbalize any discomfort that they felt. Three participants became tearful during the interviews when they narrated that they were feeling homesick. However, they composed themselves and continued with the interviews.

Participants were not coerced to participate or remain in the research study. Coercion is when an individual is intentionally threatened or lured with a reward to obtain compliance (Grove, et al., 2013:164). Participants were informed that they could withdraw at any time during the research study and data collected from them would be excluded in the research. None of the participants withdrew.

1.9.5 Justice

This principle refers to fairness and equity (Cobban, et al., 2008:235). It ensures that vulnerable groups are not exploited for the advancement of knowledge. Only participants who complied with the inclusion criteria were selected for this research study. Informed consent was obtained from all the participants prior to participation in the study.

In this study, the adolescent mothers were a vulnerable group. However, by exploring the experiences of adolescent mothers providing KMC to their infants, this research study may inform guidelines that are contextually sensitive to the needs of adolescents. This knowledge of the experiences of the adolescent mothers may assist nurses to provide additional education, guidance and holistic support to adolescent mothers before they are discharged from a KMC ward.

1.10 DEFINITIONS

Experiences

An experience involves the gaining of knowledge by being personally involved in an event, situation or circumstance (Burns & Grove, 2007:15).

Adolescence

Adolescence is a transitional phase of growth and development between childhood and adulthood. The World Health Organization (WHO) defines an adolescent as a person between the ages of 10 and 19 years (World Health Organization, 2014:2). The adolescent mother 15 to 19 years was recruited in this study.

Kangaroo mother care

Kangaroo mother care is when an infant is placed in an upright position against the mother's bare chest. The infant only has on a nappy, cap and socks. The mother and infant is then covered with a blanket (Western Cape Department of Health 2011:9).

Continuous kangaroo mother care

Continuous kangaroo mother care is when an infant is cared for in the kangaroo position for more than 20 hours per day (Bergh, 2011:1).

Low birth weight infant

An infant with a birthweight of less than 2500g (Marshall, Raynor & Nolte, 2016:618).

Premature infant

A premature infant is an infant born before 37 weeks' gestation (Republic of South Africa, 2015:101).

Mother-infant dyad

The mother and the infant together are seen as a single unit (Western Cape Department of Health, 2003:2).

Nurse

A person registered in one the following categories:

- (a) Professional nurse;
- (b) Midwife;
- (c) Staff nurse;
- (d) Auxiliary nurse; or
- (e) Auxiliary midwife under section 31(1) of the Nursing Act No 33 of 2005 in order to practise Nursing or Midwifery (South African Nursing Council, 2005:25).

1.11 DURATION OF STUDY

Table 1 illustrates the study time frame.

Table 1.1: Time frame

Year	Month	Activity
2016	June	Submission of proposal to Health Research Ethics Committee (HREC)
	October	Approval from HREC
	November-April	Provincial/institutional permission
2017	May	Pilot interview
	May-October	Data collection
	May-November	Data analysis
	July-December	Writing of thesis with continuous review by supervisor
	December	Technical and grammar editing
	December	Submission of thesis

1.12 CHAPTER OUTLINE

Chapter 1: Foundation of the study

The introduction, background and rationale for the research study were described in this chapter. A brief overview of the literature, the research question, aim, objectives, research methodology, the definition of terms and the layout of the research study were provided.

Chapter 2: Literature review

The literature review summarises and discusses kangaroo mother care and the experiences of nurses working in KMC wards and mothers providing KMC in a hospital setting. The literature relevant to adolescent pregnancy and the caring abilities of adolescent mothers are described.

Chapter 3: Research methodology

Chapter 3 includes an in-depth description of the research methodology used to explore the experiences of adolescent mothers providing continuous KMC to their infants in a hospital.

Chapter 4: Findings

The findings of the research study are described in this chapter and interpreted according to the main themes and sub-themes that emerged.

Chapter 5: Discussion, conclusions and recommendations

In this chapter, the findings are discussed as related to the study objectives. The researcher provides conclusions the research study and provides recommendations based on the scientific evidence acquired.

1.13 SIGNIFICANCE OF THE STUDY

The current KMC policy and guideline of the Western Cape Department of Health overlooks the physical, emotional and social support required for adolescent mothers. Adolescents are likely to experience challenges while caring for their infant, (Emery, et al., 2008: 66; Figueiredo, et al., 2014:194). There appears to be a paucity of research conducted on the experiences of South African adolescent mothers providing kangaroo mother care in hospitals. By exploring the experiences of adolescent mothers on providing KMC to their infants, the research findings could be used to inform guidelines that are contextually sensitive to the needs of adolescent mothers who provide continuous KMC to their infants in a hospital. These guidelines may assist nurses to provide additional education, guidance and holistic support to adolescent mothers while they are in hospital and before they are discharged from the KMC ward.

1.14 SUMMARY

In this chapter, an explanation was provided on the background, significance and importance of doing a research study on the experiences of adolescent mothers on providing KMC to their infants. The research question, research aim, research objectives and definition of terms are stated. A brief overview of the literature is provided. The qualitative research design and the descriptive phenomenological research approach is described to be the most appropriate approach to achieve the aims and objectives of this study. The study population and sampling is explained including the data collection and data analysis method. There is an in-depth explanation of the ethical considerations applicable to this study. The operational definitions, duration and layout of the study are listed.

The literature review, which follows in chapter two, will review and discuss KMC and the experiences of nurses working with mothers providing KMC in hospital. The literature relevant to adolescent pregnancy and the caring abilities of adolescent mothers will also be described.

1.15 CONCLUSION

KMC has been found to be the best method of caring for low birth weight and premature infants. Adolescents are at risk of having a low birth weight or premature infant. Pregnancy during adolescence may involve both medical and psychosocial problems, which could affect the care of a premature or low birth weight infant. The preliminary literature review did not reveal any specific research conducted on the experiences of adolescent mothers providing kangaroo mother care in hospitals. It is therefore important to conduct research on this phenomenon so that the experiences of adolescent mothers providing KMC to their infants and the interactions of the adolescent mothers with the nursing staff in the KMC ward can be described. This will allow the researcher to identify and describe the physical, emotional and social support the adolescent mothers receive and their requirements while in the ward and when discharged.

CHAPTER TWO LITERATURE REVIEW

2.1 INTRODUCTION

A literature review is a systematic and critical appraisal of the most important literature on a research topic. The literature review determines what is known about a research topic and the strengths and weaknesses of earlier studies. It also determines any gaps, generates research questions and uncovers new practice protocols (LoBiondo-Wood & Haber, 2014:51).

In chapter one, the background and rationale of this study was discussed. This chapter discusses the literature review that is relevant to the research study. The literature identified provides a background to KMC and its benefits, adolescent pregnancy and the incidence of low birth weight infants, adolescent psychosocial development, adolescent motherhood, the experiences of nurses working in KMC wards and the experiences of mothers providing KMC in hospital. Orem's self-care theory is discussed to provide a theoretical basis for interpreting the experiences of adolescent mother's in relation to KMC and the role of the nurse in supporting the adolescent mother with self-care and care for her infant. The literature review discusses research studies from developed and developing countries, including research studies done in South Africa.

2.2 ELECTING AND REVIEWING THE LITERATURE

Various databases such as Stellenbosch University Library and Information Service, EBSCOhost, PubMed, CINAHL, Science Direct and MEDLINE were used to search for journal articles and other publications applicable to the phenomenon. The majority of the publications accessed were published within the past ten years.

Journal articles and publications were found using the following keywords and medical subject headings (MeSH) terms:

- Kangaroo mother care
- Adolescent/teenage pregnancy
- Adolescent/teenage psychosocial development
- Adolescent/teenage pregnancy/caring abilities/motherhood
- Nursing theories
- Experiences/nurses/kangaroo mother care
- Experiences/mothers/adolescent mothers/kangaroo mother care

This literature review was compiled over 24 months. A preliminary literature review was conducted prior to completion of the research proposal to establish whether any studies had been published on the phenomenon. The preliminary literature review did not reveal any specific research conducted in South Africa on the experiences of adolescent mothers

providing KMC to their infants in a hospital. Therefore, it was important to conduct research on this phenomenon so that the experiences of adolescent mothers providing KMC to their infants and the interactions of the adolescent mothers with the nursing staff in the KMC ward can be described. This has further allowed the researcher to identify and describe the physical, emotional and social support the adolescent mothers receive and require while in the ward and when discharged.

2.3 BACKGROUND TO AND BENEFITS OF KANGAROO MOTHER CARE

KMC was introduced in Bogota, Columbia in 1978. It was implemented as an alternative method to neonatal intensive care for low birth weight infants, in an effort to reduce the burden on overcrowded neonatal wards that area scarce and costly resource. Furthermore, a high rates of neonatal infection and mortality existed and KMC was found to decrease infant mortality, severe illness, infection and length of hospital stay (Jeffries, 2012:141). In Bogota, KMC promoted frequent and exclusive breastfeeding while improving mother-infant attachment and bonding.

While providing KMC, mothers hold their low birth weight infants upright next to their skin. The infant wears only a nappy, cap and socks and is held against the mother's bare chest and is covered with a blanket (Jeffries, 2012:141). Infants can be cared for in the kangaroo position intermittently or continuously for more than 20 hours per day (Bergh 2011:1).

KMC has since been adopted in countries around the world. In low and middle-income countries, KMC begins in the first week of life and has shown a significant reduction in neonatal mortality. In these countries, the focus of KMC is on infants with a birthweight of less than 2000g. The mother and infant are discharged as soon as the mother is able to care for and feed her infant regardless of weight gain (Jeffries, 2012:141-142).

The benefits of KMC for low birth weight infants could be used as further motivation for the promotion and implementation of KMC to achieve the development goals on child survival (Bergh, 2011:2). In under-resourced settings where incubators or radiant warmers are scarce, KMC should be implemented to reduce neonatal mortality and morbidity. Evidence from high-income countries suggests that KMC can promote the practice of breastfeeding (Bergh, 2011:2).

The implementation of KMC can be initiated at institutional or health-system level and requires little additional resources with minimal cost implications for healthcare facilities. Currently, KMC forms part of many newborn care packages rolled out in under-resourced settings. The orientation of healthcare workers in KMC implementation is important and could either be integrated into these packages or provided separately (Bergh, 2011:2). Barriers to the

implementation of KMC vary and may include poor staff knowledge, inadequate training, discomfort with the process, lack of time or resources, lack of privacy and parental reluctance (Jeffries, 2012:141-142). Further, there may be a danger of KMC declining in priority when too many new demands are simultaneously placed on already overburdened healthcare workers. Guidelines on how to manage resistance to KMC by healthcare workers, mothers and communities would also need to be developed (Bergh, 2011:2). The above-mentioned literature explains the practice of KMC and emphasize the benefits of KMC for the infant, parents and the health service.

2.4 GUIDELINES FOR KANGAROO MOTHER CARE

In 2003, the World Health Organization (WHO) published the Practical Guide for Kangaroo Mother Care. The practical guide for KMC has been developed for health professionals who care for low birth weight and preterm infants in first referral hospitals in settings with scarce resources. The main objective of the practical guide for KMC is the development of national and local policies, guidelines and protocols from which training material can be developed for KMC. The practical guide for KMC describes the benefits, requirements and guidelines for providing KMC in hospitals (WHO, 2003:3). The objective of the practical guide for KMC is for departments of health to develop national policy that ensures a coherent and effective integration of the practice of KMC within the health system. This should include the continuing education and training of hospital staff on KMC, infant feeding and breast feeding support. Each health facility that implements KMC should have a written policy and guidelines adapted to the local situation and culture (WHO, 2003:12).

Subsequently, in 2003, the Western Cape Government Department of Health published a policy and guideline for KMC based on the WHO practical guide for KMC. It describes the guidelines for providing KMC in hospitals, the benefits, objectives and resources for the provision of KMC (Western Cape Government, 2003:1). The Western Cape KMC policy and guideline is aimed at all healthcare workers including, doctors, nurses, occupational therapists, physiotherapists, nutritionists, social workers, policy makers and managers (Western Cape Government, 2003:3). A revised KMC policy and guideline for the Western Cape was published in 2011.

The WHO practical guide for KMC explains that the most important resources for KMC are the mother, personnel with special skills and a supportive environment (WHO, 2003:4-7). The WHO practical guide for KMC, further mentions that the benefits of KMC for the infant and parents and hospital is the reduction in infant mortality and morbidity; promotion of breastfeeding and growth; provision of thermal protection and metabolism; and the promotion and establishment of empowerment, self-esteem and confidence of both parents, especially the mother. This may result in a decrease in the length of hospital stay and reduction in

hospital costs (WHO, 2003:4-7). All mothers can provide KMC, irrespective of age, parity, education, culture and religion. KMC may be particularly beneficial for adolescent mothers and for those with social risk factors (WHO, 2003:20). The requirements discussed in the WHO practical guide for KMC are formulation of policy, organization of services and follow-up, equipment and supplies for mothers and babies and skilled providers for the facilities (WHO, 2003:11).

The Western Cape Government KMC policy and guideline specifies in detail how KMC should be implemented which includes the practice of KMC, infant feeding, support and discharge (Western Cape Government Department of Health, 2003:4). The WHO practical guide for KMC specifies that the mother should be educated on the benefits, practice and advantages of KMC as soon as a low birth weight infant is born (WHO, 2003:13). However, the Western Cape Government KMC policy and guideline stipulates that the mother should have the concept of KMC explained and demonstrated to her in the antenatal clinic. The explanations and demonstrations should continue after the baby is born until the mother is motivated and able to put the baby in the KMC position independently and to breastfeed. Staff at all levels of neonatal care should be able to educate parents about KMC, to assist them with positioning of the infant, drips, oxygen tubing, feeding and to discuss any queries they might have. Mothers need strong emotional support and practical guidelines for prolonged KMC (Western Cape Government Department of Health, 2003:4).

The practice of KMC, either continuously or intermittently, should start irrespective of gestational age or weight of the infant. KMC can commence if the infant is stable and receiving 40% or less oxygen. The promotion of adequate and regular feeding is essential, particularly at night. Infants under 1500 grams should be fed at least every two hours and infants over 1500 grams at least every three hours. Babies who are unable to suckle may be fed expressed breast milk via a naso-gastric tube or cup by the mother. HIV-positive mother should be counselled about feeding their infants according to their circumstances, current scientific information and current policies (Western Cape Government Department of Health, 2003:4).

When the mother is informed that she will be admitted to the KMC ward to provide continuous KMC, she must be orientated to the KMC ward and be informed of the ward routine and that she needs to bring with her toiletries and comfortable clothes to wear during the day rather than a hospital gown. The KMC ward should be as comfortable as possible and have a homely rather than a hospital atmosphere. The KMC ward should be used as a venue for education and empowerment of mothers of low birth weight infants. Short lectures and informal discussion on KMC, mother craft, infant and child health topics should be instituted (Western Cape Government Department of Health, 2003:4-5).

The ward should have an open-door policy for fathers, other family members and siblings. The fathers, grandparents or any other responsible adult of the mother's choice may also provide KMC to the baby if the mother is unable to or needs to be relieved (Western Cape Government Department of Health, 2003:4). Providing KMC can be demanding for all involved, especially the mother who provides most of the care. The mothers should be regarded as full members of the health care team and not as patients. Although for continuous KMC, the mother will take up most of the health workers' time in terms of support and motivation. Mothers require a considerable amount of practical and emotional support and this must be factored into any KMC protocol (Western Cape Government Department of Health, 2011:20). Mothers should also be allowed to move around freely during the day, but must respect the schedules for patient care and feeding times of their babies. The physical environment of the KMC ward in the hospital should be kept warm with decreased noise levels and strict infection control principles should be implemented and monitored. There should be comfortable beds and chairs for the mothers, if possible adjustable ones or with enough pillows to maintain an upright or semi-recumbent position for resting and sleeping with the baby in the KMC position. They should have nutritious meals and a place to eat with the baby in the KMC position (Western Cape Government Department of Health, 2003:13-14). Mothers should have the opportunity to change or wash clothes during their stay. Recreational, educational and even income generating activities can be organized for mothers during KMC in order to prevent or reduce frustrations of being away from home and boredom (Western Cape Government Department of Health, 2003:13-14).

Preparation for discharge should occur from the start of KMC and when discharged, continuous KMC should be practiced. Any responsible adult can provide KMC, if the mother needs a break but only until the next feed. The infant is discharged if well, gaining at least 15g per day, is feeding adequately, the mother is confident in handling the infant and is committed to doing KMC at home. However, if the mother or baby does not fulfil the discharge criteria, the discharge is delayed irrespective of the baby's weight. Following discharge, infants should be seen daily if weighing less than 1800g and every second or third day if weighing more than 1800g. Infants who do not gain at least 15g per day should be discussed with a doctor and any infant who persistently fails to gain weight or who is ill in any way should be readmitted (Western Cape Government Department of Health, 2003:5-6). The objectives of the Western Cape Government KMC policy and guideline is to establish KMC as a safe and effective method of care for low birth weight infants and to facilitate the implementation of KMC at all levels of health care in the Western Cape Province. This can be achieved by changing the current patterns of thinking and practice in all spheres of health care that a baby and its mother are a single unit. Healthcare workers should be trained in KMC and infant feeding and the

mothers and public should be made aware of KMC and its benefits (Western Cape Government Department of Health, 2003:7-9).

The guidelines of WHO and the Western Cape Department of Health provides information on how to implement and sustain the practice of KMC. The guidelines however do not provide information on the support of adolescent mothers providing KMC.

2.5 STANDARDS FOR ADOLESCENT-FRIENDLY HEALTH SERVICES

WHO has published the National Quality Standards for Adolescent-Friendly Services. This publication provides a step-by-step guide on developing quality standards for adolescent-friendly health services which include HIV treatment and sexual and reproductive health services (WHO, 2012:1).

In 1995, WHO, in conjunction with the United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA), collaborated on a shared initiative adolescent health and development. This collaboration had two goals aimed at adolescent health and development. The goals are to prevent health problems and to respond to health problems. A set of interventions was implemented to meet the special needs of adolescents. This includes the provision of education and knowledge, the establishment of a safe and supportive healthcare environment that includes the availability of health and counselling services (WHO, 2012:3).

The WHO quality of care framework considers that adolescent-friendly services should be accessible, acceptable, appropriate, effective and equitable. All services should be accessible by law for all adolescents. Adolescents should find a health service acceptable in that their privacy and confidentiality is maintained. The service should be appropriate for their needs. The health service should be effective by providing the right service in the right way. All adolescents should be treated with equity and not judged (WHO, 2012:7-8).

Adolescents are confronted with barriers in obtaining health services. These barriers include accessibility, availability, acceptability and equity. Availability of services is a common barrier for all. Accessibility, acceptability and equity are barriers which only adolescents are confronted with. Services may not be accessible for adolescents due to laws, policies or regulations that prohibit adolescents from accessing the services. Adolescents may feel that services are not acceptable because their privacy and confidentiality may not be maintained. They may be judged and treated unfairly, which makes the service not equitable for all. Adolescents have reported that their main request for a service is that they should be treated with respect and confidentiality should be maintained (WHO, 2012:5).

The barriers mentioned above for adolescents obtaining health services can be overcome by the implementation of several initiatives. Health service providers should not be judgemental and should be considerate in providing services to them. Health service providers should be competent and provide the service in the right manner as per existing policies and guidelines. Health services should be equipped to provide adolescent-friendly health services that are appealing. Adolescents should be made aware of the services available for them and communities should be made aware of these specific health services and they should support the provision of these services (WHO, 2012:6).

Adolescent-friendly services should ensure that the health problems experienced by adolescents are prevented and managed in services that are acceptable to all adolescents where they are treated by competent and non-judgemental health workers. The current Western Cape Government KMC policy and guideline does not outline principles applicable to the support of an adolescent mother. Chibber, et al., 2014:297, reveals that adolescent mothers are at risk of having a preterm pregnancy. Therefore, it is plausible that an adolescent will have to render KMC to her preterm infant. Hence, adolescent friendly services should be applied in a KMC ward where adolescent mothers provide KMC.

2.6 ADOLESCENT PREGNANCY AND THE INCIDENCE OF LOW BIRTH WEIGHT INFANTS

In 2014, The WHO published an article, "Pregnancy and childbirth outcomes among adolescent mothers: a World Health Organization multicountry study." The study objective was to investigate the risk of adverse pregnancy outcomes among adolescents in 29 countries in Africa, Latin America, Asia and the Middle East (Ganchimeg, Ota, Morisaki Laopaiboon, Lumbiganon, et.al, 2014:40-48). The study design was a secondary analysis using facility based cross-sectional data of the World Health Organization Multicountry Survey on Maternal and Newborn Health. The study was conducted concurrently in the 29 countries using a standard methodology. The aim of the study was to explore whether adolescent mothers aged 15-19 years have a higher incidence of complications in pregnancy compared with mothers aged 20-24 years (Ganchimeg, et al., 2014:40- 41). It is estimated worldwide that about 11% of births are to adolescents aged 15-19 years. More than 90% of these births occur in low- and middle-income countries. Adolescent pregnancy during puberty has adverse complications for both the adolescent mother and the infant. (Ganchimeg, et al., 2014:40-41). The results further showed that for adolescent maternal outcomes, there is a higher risk of hypertensive complications, operative deliveries and infections post-delivery compared to older mothers. The neonatal outcomes revealed that adolescent pregnancy was exclusively related to a low birthweight infant, preterm delivery and neonatal complications such as neonatal death. (Ganchimeg, et al., 2014:45). It is suggested that adolescent pregnancy

prevention programmes and the early identification and management of risk factors is critical to decrease the complications of adolescent pregnancy in low- and middle-income countries (Ganchimeg, et al., 2014:47).

A retrospective case-controlled study was performed at a hospital in Turkey to explore if adolescent pregnancy has a higher risk for perinatal complications. The primary focus was on the association of adolescent pregnancy and preterm delivery (Kirbas, Gulerman & Daglar, 2016:367). The participants were adolescents aged 15-19 years who gave birth to a low birth weight or preterm infant between January 2008 and December 2009. The control group were adults between 20 and 34 years old (Kirbas, Gulerman & Daglar, 2016:367). In this study, it was found that the adolescent group have a higher prevalence of low birth weight infants, preterm births, low Apgar scores and neonatal intensive care admissions compared with the adult group. The factors that contribute to perinatal complications are young gynaecological age, physiological immaturity, decreased socioeconomic status, recreational tobacco and alcohol consumption, lack of antenatal care, lack of social support and malnutrition (Kirbas, Gulerman & Daglar, 2016:369). However, the authors state that it is challenging to identify the cause of preterm birth because preterm birth is related to numerous factors. Similarly, it is difficult to identify the risk factors related to a preterm birth because of multiple reasons that causes preterm labour. This study has however found that there is a higher prevalence of preterm delivery in adolescent pregnancy (Kirbas, Gulerman & Daglar, 2016:369).

The above research studies conclude that adolescent pregnancy has a higher risk of adverse maternal and neonatal outcomes. Thus, adolescent mothers are at a higher risk of having a low birth weight infant who will require admission to hospital for KMC.

2.7 ADOLESCENT PSYCHOSOCIAL DEVELOPMENT

Adolescence is a transitional phase of growth and development between childhood and adulthood. WHO defines an adolescent as any person between 10 and 19 years old (WHO, 2014:2). Adolescence is divided into three phases, namely, early adolescence, which is ten to 14 years of age, middle adolescence, which is 15-17 years of age and late adolescence, which is 18-19 years of age. Early adolescence includes a change from primary to high school and is associated with the beginning of puberty and the change from child to adolescent. The typical teenager presents in middle adolescents. During middle adolescence, peer group association increases, and the adolescent becomes more obsessed with peer group norms and activities. Late adolescence is the transition into adulthood and intimate relationships. Adolescence is associated with increased emotional and psychological problems. This includes becoming aggressive, misbehaviour, use of recreational drugs and sexual risk-taking behaviour (Short & Rosenthal, 2008:36-38). The psychosocial development of adolescence

can be broadly categorized along the domains of cognitive, identity and relationship development (Chulani & Gordon, 2014:482).

2.7.1 Cognitive development

Early adolescents demonstrate increased capacity for logical thought, but have difficulty grasping hypothetical concepts. Impulsiveness and limitations to understanding cause-and-effect relationships are hallmarks of early adolescence. In middle to late adolescence, the adolescent demonstrates expanding cognitive abilities and intellectual interests. In these later stages, they show the capacity for deductive reasoning, problem solving and abstract thinking (Chulani & Gordon, 2014:482).

2.7.2 Identity development

The establishment of self-concept and identity are defining tasks of adolescence. In establishing a physical self-concept, adolescents characteristically display preoccupation with pubertal changes and uncertainty about their appearance (Chulani & Gordon, 2014:482). As girls go through adolescence, they become displeased and obsessed with their bodies. Puberty may be associated with a curiosity to explore sexual feelings. Many adolescents do this in the context of a romantic relationship. However, a few adolescents have multiple partners and do not use a contraceptive method to protect themselves from unplanned pregnancy or from sexually transmitted infections (Short & Rosenthal, 2008:39).

2.7.3 Relationship development

Adolescence is marked by significant shifts in relationships. In the striving for autonomy and independence, the parent-child relationship changes (Chulani & Gordon, 2014:483). The adolescent may have more conflict and engage in less communication with their parents, and when they do communicate, the conversations are more intense (Short & Rosenthal, 2008:38). This period is characterised by an increased demand for privacy, decreased interest in parent- and family-based activities and the challenging of parental authority (Chulani & Gordon, 2014:483). Adolescents begin spending more time with peers and peers start to have more influence in the adolescents' lives. These peer friendships seem to help adolescents adjust to the transitional period from childhood to adulthood (Short & Rosenthal, 2008:37).

2.8 ADOLESCENT MOTHERHOOD

The transition to motherhood is associated with physiological and psychosocial changes, predominantly in the adolescent mother's individuality, responsibilities, apprehensions and interactions. Psychological adjustment during the transition to parenthood seems to be challenging for adolescent mothers because it is associated with the adolescent mother's

capability to adjust to the many changes of adolescence and motherhood simultaneously. (Figueiredo, et al., 2014:194).

A quantitative research study was performed in a Portuguese Maternity Hospital to analyse the differences between adolescent and adult pregnant women and the contribution of maternal age to maternal adjustment and maternal attitudes. A sample of 398 Portuguese pregnant women between the ages of 13 and 44 were recruited in a Portuguese Maternity Hospital. Of the women, 111 were younger than 19 years old and were between 24 and 36 weeks gestation. The participants completed the Maternal Adjustment and Maternal Attitudes Questionnaire that was designed to assess maternal adjustment and maternal attitudes during pregnancy and after delivery. This is a self-administered questionnaire composed of 60 items that measures the mother's body image, somatic symptoms, marital relationship, attitudes to sex and attitudes to the pregnancy and the baby, with higher scores indicating a higher level of maternal adjustment and positive attitude (Figueiredo, et al., 2014:195). The overall results show that being a pregnant adolescent woman contributes significantly to explaining lower maternal adjustment and poorer maternal attitudes during pregnancy when compared to an adult pregnant woman (Figueiredo, et al., 2014:195).

Studies conducted in Ghana (Gyesaw & Ankomah, 2014:773-780) and Uganda (Kaye, 2008:1-6) explored the experiences of adolescent mothers during pregnancy, childbirth and motherhood. Most of the adolescent mothers who participated struggled to cope with the transition from adolescence to motherhood.

The qualitative study performed in Ghana, explored the experiences of adolescent mothers during pregnancy, childbirth and care of their newborns. The data for this qualitative study was derived from nine in-depth interviews and eight focus group discussions held from April to May of 2012 with 54 teenage mothers aged 14-19 years in the Ga East Municipality, a suburb of Accra in the capital city of Ghana. (Gyesaw & Ankomah, 2014:773-774). Some of the adolescents explained that they planned the pregnancy because they wanted to bear a child while still young. They mentioned that they wanted to "prove they were mature" and by becoming pregnancy it heightened their societal value, because pregnant woman are respected in society. (Gyesaw & Ankomah, 2014:776). The adolescent mothers all relied on assistance from their family to care for their infants. Many admitted that they would not have been able to manage on their own without assistance because they did not have any maternal skills. The findings revealed that adolescent mothers face many challenges simultaneously during the adolescent developmental phases and motherhood. Adolescent mothers have to adapt to the needs of their infant as well as satisfying their own needs as adolescents (Gyesaw & Ankomah, 2014:779).

In many developing countries, especially in sub-Saharan Africa, adolescent pregnancy is regarded as an important social and reproductive health concern (Kaye, 2008:82). The research study in Uganda explored the perception of adolescent mothers on their challenges during the transition from child to mother and described the coping mechanisms used for the unintended pregnancy and motherhood. A longitudinal qualitative study involving 22 in-depth interviews and six focus group discussions among pregnant adolescents was conducted from January 2004 to August 2005 (Kaye, 2008:82). This study was carried out in Mulago Hospital, the national referral hospital in Kampala, Uganda. Fifty-two participants aged 14-19 years were recruited from the antenatal clinic and followed up to delivery and in the postnatal clinic. The participants were interviewed during pregnancy and within the first six weeks post-delivery. The focus groups were conducted postnatally, and were arranged according to two age groups: those aged 16 years and less and those 16 years and older (Kaye, 2008:83). Motherhood was accepted by some of the younger and older adolescents and was looked upon with gratification and dignity. The factors which enabled the adolescent mothers to accept the pregnancy and motherhood was the social and financial support they received, (Kaye, 2008:83). Some adolescent mothers did not adjust well to the transition from adolescent to motherhood. They narrated that they felt overwhelmed by the stigma of the pregnancy and did not have adequate coping mechanisms to manage the stressful situation. The adolescent mothers also mentioned that they regretted the pregnancy because it reduced their opportunities to be successful. (Kaye, 2008:83).

The implication of these studies is that healthcare providers need to acknowledge that pregnant adolescents and adolescent mothers have individual and specific needs. They should identify the strengths, weaknesses and goals of each adolescent to develop a specific care plan or identify a programme to support the adolescent mothers. There is a need to implement individual programmes that will enable the adolescents' to cope with the strain of adolescence, pregnancy and motherhood. (Kaye, 2008:83).

2.9 THE EXPERIENCES OF NURSES IN KMC WARDS

In Australia (Chia, Sellick & Gan, 2006:20-27) and in South Africa (Solomons & Rosant, 2012:33-39), it was found that nurses play an important role in creating a supportive environment for mothers providing KMC. However, the literature concludes that nurses were often not trained and the nurses' felt that they could not provide adequate support to mothers who provide KMC to their infants.

In Australia, a descriptive survey was performed in the neonatal intensive care unit (NICU) of a large public hospital in Melbourne, with 34 nurses out of 91 nurses and included 16 in-depth interviews. The aim of the study was to determine the attitudes and practices of Australian neonatal nurses in the use of KMC and to determine the potential barriers to promoting KMC

in the NICU. This study concluded that neonatal nurses accept the use of KMC in the NICU. Although the majority of nurses reported a willingness to practice KMC, they however identified a few educational and practical issues that needed to be considered (Chia, et al., 2006:20). The nurses' concerns were that they spend time in preparing the infant, supporting the parents and monitoring the infant's condition during KMC. There is a lack of space and privacy and they were concerned that equipment may dislodge during KMC. Some nurses felt that the parents were not able to have eye contact with their infants because of the positioning for KMC. They emphasized that parents and staff should receive information and education on KMC and the practice thereof (Chia, et al., 2006:25).

The study performed in South Africa in the Eastern sub-district of the Cape Town Metropole, at Helderberg District Hospital, aimed to determine the knowledge of and attitudes of nurses towards KMC. The sample included all nursing staff working in the KMC ward and all the nurses employed at the prenatal clinics that mothers identified during the interviews. Information collected from nursing staff included experience with prenatal care, training received in KMC, knowledge of, and attitudes towards KMC. A five-point Likert scale ranging from "strongly disagree" to "strongly agree" was used to assess their knowledge of, and attitudes towards KMC. Closed-ended questions were used to assess KMC practices and open-ended questions were used to evaluate their knowledge of KMC (Solomons & Rosant, 2012:34-35). Hospital-based nursing staff expressed their willingness to practice KMC. They felt that KMC would not be a burden and that KMC provided benefits for the preterm infant and mother. They however, felt that the ward infrastructure was not adequate for the successful implementation of KMC. The antenatal clinic nurses felt that since KMC is practised in hospitals and not at the antenatal clinics, they did not perceive the need for continued KMC training, equipment, and support for the implementation at antenatal clinic level. It was however, evident that training programmes should be established to address the misconceptions as well as the gaps in knowledge of KMC for all nursing staff irrespective of whether they are working at an antenatal clinic or a hospital (Solomons & Rosant, 2012:38).

The studies performed in Australia and South Africa both had a small number of participants. The studies, however, were strengthened by using a quantitative survey and conducting interviews that allowed the participants to describe their experiences when providing KMC. The researchers were therefore able to describe the attitudes, practises and knowledge of the nurses. All the nurses supported the use of KMC for preterm infants. This view could be based on the knowledge they received about the benefits of KMC. The nurses in Australia felt that KMC increased their workload whereas, on the contrary, the South African nurses had no resistance to implementing KMC. In both studies, the nurses felt that the infrastructure to provide KMC was inadequate and that more education should be provided for both nurses and parents.

2.10 THE EXPERIENCES OF MOTHERS IN PROVIDING KANGAROO MOTHER CARE IN HOSPITALS

Studies were conducted in Sweden by Blomqvist and Nyqvist (2010:1472-1476), in Columbia by Johnson (2007:570-572) in Malawi by Chisenga, Chalanda and Ngwale (2015:305–315), and in South Africa by Solomons and Rosant (2012:33-39) to explore the experiences of mothers providing KMC. These studies found that the mothers indicated that the nursing staff were not being supportive of their needs and the mothers also felt that the nursing staff should provide more education.

A retrospective survey design was used to study the experiences of Swedish mothers' providing continuous KMC to their infants. This study was conducted in an 18-bed neonatal intensive care unit at a Swedish university hospital. A purposive sample was identified, consisting of all mother-infant dyads who had experienced continuous KMC from birth to discharge during the period November 2004-May 2006. A total of 23 mother-infant dyads were identified (Blomqvist & Nyqvist, 2010:1472-1473). The ages of the participants were not specified.

A questionnaire was used which consisted of 24 closed-ended questions and the mothers were asked to rank their responses about their experience as 'Agree completely', 'Agree partly', 'Disagree partly' or 'Do not agree at all'. The questions were formulated to obtain an understanding of the mothers' experience of, and attitudes towards, continuous KMC regarding the following four aspects: mother-infant contact; maternal stress, anxiety and fear related to KMC; KMC and the role of the nursing staff; and the KMC method specifically. One open-ended question was included, in response to which the mothers were invited to give spontaneous comments about KMC and the care provided at the NICU (Blomqvist & Nyqvist, 2010:1474). The mothers were all satisfied with the contact they had with their infants and felt safe in providing KMC. They however reported that they found the nursing staff not supportive of their needs and found that information provided to them about KMC by the nursing staff was inadequate. Caring for a preterm infant exclusively can be tiresome and frustrating for parents. Nurses ought to provide parents with assistance specifically for procedures that are challenging for parents such as nasogastric tube and cup feeding. The parents also expressed that the nurses could manage the feeding of the preterm infants at night so that the parents could have time to rest and sleep (Blomqvist & Nyqvist, 2010:1478).

In Columbia, a study was performed to describe the maternal experiences of KMC. A qualitative design was conducted using interviews with 18 mothers who were providing KMC in a NICU over a period of five months (Johnson, 2007:568). The qualitative open-ended interview questions allowed the researcher to gain enough data to be able to adequately describe the experiences of mothers providing KMC. Only the mean age of 26.3 years is

mentioned (Johnson, 2007:569). Thus, it is assumed that most of the participants were adults. The three themes that were identified were maternal-infant benefits of KMC, the need for support and satisfaction with interactions. Mothers expressed joy before, during and after providing KMC. This was expressed in facial expressions, body language and verbally. Secondly, the mothers expressed the need that nurses should guide KMC by encouraging and educating the mothers. Lastly, each mother expressed satisfaction with their interaction with the infants, despite the infants' physical health status. They explained that they felt connected to the infants and that the experience of KMC taught them how to be mothers. Mothers who were providing KMC, expressed that as their self-confidence increased, they accepted motherhood. The mothers were observed to bond with their infants by looking at and touching their infants and displaying a positive attitude towards their infants. This allowed the mothers to identify the infant cues and provide care to their infants as per the infant cues (Johnson, 2007:570-572).

The research study performed in Malawi aimed to review the experiences of mothers providing KMC in hospitals in Bwaila and Zomba. This study used a quantitative design with an element of qualitative design to review the mothers' experiences of KMC. The 113 participants were interviewed by the researcher using a pre-structured and pre-tested questionnaire in a private environment and the information collected was translated into numerical information and analysed using statistical procedures. The questionnaire had both open- and close-ended questions. The open-ended questions were included in the questionnaire to allow participants to identify variables not foreseen by the researcher (Chisenga, et al., 2015:305-306). The age of mothers included in this study ranged between 15 and 45 years. Of the 113 participants, 72 were in the age group 15-25 years (Chisenga, et al., 2015:309). The findings of the study were discussed under three themes, which were factors that increase the uptake of KMC, factors that hinder the uptake of KMC and strategies to improve acceptability and the uptake of KMC. The key factor that increased the willingness to provide KMC was that the women had counselled on the benefits of KMC (Chisenga, et al., 2015:311). The study revealed that an important factor which hinders uptake is that the length of stay in hospital was too long. Some of the mothers left the hospital due to cultural issues, since the mother was not empowered to make decisions on her own and had to first consult with significant others. Mothers also felt that they were not receiving enough assistance and that there was a lack of recreational activities (Chisenga, et al., 2015:311-312). The researcher suggested that the strategies needed to improve acceptability and uptake of KMC included mass media campaigns to promote awareness and the benefits of KMC. Counselling should include significant others so that the mother can receive support and co-operation from the family. First time mothers and teenagers require constant support from healthcare workers so that they are able to gain confidence to care for their infants (Chisenga, et al., 2015:313).

Solomons and Rosant (2012:33-35) performed a research study in South Africa. The aim of the study was to determine the knowledge and attitude of mothers towards KMC in the eastern sub-district in Cape Town. A cross-sectional descriptive study design was used with a sample of 30 mothers providing KMC to their infants in a hospital. The ages of the mothers are not specified but the mean age of the mothers was 26.9 years. This indicates that most of the mothers were adults. The study revealed that the mothers had not been counselled on the practice and benefits of KMC. However, on admission to the KMC ward, they were provided with information about the benefits and practice of KMC in ensuring the weight gain of the infant, as well as the importance of breastfeeding for development and growth of the infant. In most cases, the mothers were unable to care for their newborn infants. They expressed that they felt incapable, fearful and lacked self-confidence in their ability to care for their preterm infants. They however accepted providing KMC and indicated that they would continue to practice KMC when they are discharged from hospital (Solomons & Rosant, 2012:38). The long hospital admission however interfered with their acceptance of KMC, because they were concerned about their other children at home. The mothers expressed that they occasionally felt despondent and longed for their families, especially when their family could not visit them regularly (Solomons & Rosant, 2012:38). Some mothers expressed a need for dedicated nursing staff to be available to provide them with support and education (Solomons & Rosant, 2012:38).

The above studies reveal that mothers who provide KMC to their infants should be empowered and supported by the healthcare workers while in hospital and after they are discharged. This will specifically enable the adolescent mothers, who are likely to have their first experience of motherhood, to gain confidence in providing care for their infants.

2.11 OREM'S SELF-CARE DEFICIT NURSING THEORY

Orem's theory is comprised of three related parts, namely, theory of self-care; theory of self-care deficit; and theory of the nursing system (George, 2010:115). When applying this theory to the adolescent mother, the care of the mother-infant dyad should be considered.

2.11.1 The theory of self-care

This theory includes self-care, which is the practice of activities that an individual initiates and performs on his or her own behalf to maintain life, health and well-being. These are the activities of daily living. Health deviation self-care is required in conditions of illness, injury or disease (George, 2010:115), for example, taking medication for an illness. The adolescent mothers in the KMC ward are able to provide self-care for themselves if they do not have any complications that would require nursing care. The mother-infant dyad should be considered, as the mother has to provide self-care for herself but also for her preterm infant. The

adolescent mother may not need assistance to care for herself, but she may need assistance in caring for her infant.

2.11.2 The theory of self-care deficit

Orem identifies that nursing is required when an adult is incapable or limited in the provision of continuous, effective self-care. The theory of self-care deficit identifies five methods of helping:

- Acting for and doing for others;
- Guiding and directing;
- Providing physical and psychological support;
- Providing and promoting an environment that supports personal development; and
- Teaching (George, 2010:117).

In the KMC ward, the adolescent mothers and their infants require nursing actions. The adolescent mothers rely on the nurses to provide them with information and assistance with regard to their understanding of KMC, the practice of KMC and the care of their preterm infants. They also require physical, emotional, social and discharge assistance and support so that they will be able to care for themselves and their infants.

2.11.3 The theory of nursing systems

This theory describes how the patient's self-care needs will be met by the nurse, the patient, or by both. Orem identifies three classifications of nursing systems to meet the self-care requisites of the patient, namely, wholly compensatory system, partly compensatory system, and supportive-educative system (George 2010:1195). The nursing systems are depicted in Table 2.1 with definitions and examples.

Table 2.1: Classification of nursing systems (George 2010: 119)

Type of Nursing Systems	Definition	Example of application in the context of this study
Wholly Compensatory	Is represented by the situation in which the individual is unable to carry out needed self-care actions, either through inability to be self-directed or due to a medical prescription.	Adolescent mother immediately post caesarean section.
Partly Compensatory	Is represented by a situation in which the patient and nurse are both physically active in meeting the patient's self-care needs and either may perform the majority of the needed actions.	The preterm infant is in an incubator and the adolescent mother visits the infant but only provides some care. Most of the care of the preterm infant is provided by the nurse.

Type of Nursing Systems	Definition	Example of application in the context of this study
Supportive-Educative	Is represented by the capability of a person to perform self-care activities independently or needs to learn how to meet therapeutic self-care demands by herself. In either case, the person needs some manner of assistance.	The adolescent mother is assisted and given information by the nurse on how to cup feed her preterm infant.

The application of Orem's theory by the nurses in the KMC ward will ensure that the adolescent mother will be able to care of herself and her preterm infant. By providing the adolescent mother with physical, emotional, social and discharge support while in hospital, the adolescent mother will gain confidence in caring for her infant.

2.12 SUMMARY

The literature review discussed in this chapter reveals that KMC for low birth weight and preterm infants is necessary to ensure that the infants are able to gain weight and reduce their hospital stay, which is beneficial for the mothers and will decrease costs for the hospital. Guidelines are available for the implementation and sustainability of KMC. An adolescent pregnancy has a high risk of preterm delivery. However, the transition of adolescence to motherhood could be challenging for the adolescent mother due to her immaturity. Nurses working in KMC wards in hospitals may not have the necessary knowledge to educate the adolescent mothers about KMC and to support the adolescent mothers in the KMC ward. Mothers providing KMC to their infants reported that the nurses could provide them with more support and education. Orem's theory could be applied to provide support to adolescent mothers in the KMC ward.

In chapter three, the methodology that was used to explore the experiences of adolescent mothers providing KMC to their infants is discussed.

2.13 CONCLUSION

Adolescent mothers who provide KMC to their infants will require more physical, emotional and social support while in hospital and when discharged. Current guidelines on KMC do not provide specific information on the care and support of the adolescent mother while providing KMC.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In chapter one the background and rationale of this study was discussed. The literature review in chapter two discussed KMC, the experiences of nurses and mothers in KMC wards in hospitals, adolescent pregnancy and the caring abilities of adolescent mothers. The purpose of this chapter is to describe the research methodology that was used to explore the experiences of adolescent mothers on providing continuous KMC to their infants in a KMC ward in a hospital.

3.2 AIM AND OBJECTIVES

The aim was to explore the experiences of adolescent mothers on providing continuous kangaroo mother care to their infants in a kangaroo mother care ward in a hospital.

The objectives were to:

RO 1: Explore the adolescent mothers' understanding of KMC.

RO 2: Understand the experiences of adolescent mothers while providing continuous KMC to their infants.

RO 3: Describe the physical, emotional and social support adolescent mothers experience while providing continuous KMC to their infants in a hospital.

RO 4: Identify the physical, emotional and social support needs of adolescents before they are discharged from the KMC ward.

3.3 STUDY SETTING

The study was conducted in the KMC wards in Karl Bremer and Tygerberg Hospitals. These hospitals are situated in Cape Town in the Tygerberg sub-district of the Cape Metropole of the Western Cape. The Western Cape is divided into six health sub-districts. In the Tygerberg sub-district, adolescents in preterm labour are referred to Tygerberg hospital. When the preterm infant has reached a weight of 1500g, the infant and the mother are referred to the district hospital, with a KMC ward, closest to the home address of the mother (Department of Health, 2015:101-102). In the Tygerberg sub-district, Karl Bremer is the only district hospital. In 2010, the researcher had worked in the KMC ward as an Advanced Midwifery and Neonatal Nursing student. The experience of working in the KMC ward has led the researcher to develop an interest in the experiences of adolescent mothers providing continuous KMC.

The Cape Town Metropole has four large district hospitals namely, Karl Bremer, Helderberg, Khayelitsha and Mitchell's Plain and three regional hospitals namely, Mowbray, Somerset and Tygerberg. The highly specialised hospitals are Groote Schuur and Tygerberg. Tygerberg hospital therefore serves as a regional and central hospital within the Tygerberg sub-district (Gebhardt, 2015:7).

Karl Bremer hospital is a district hospital with a bed capacity of 217 beds. The package of services provided at Karl Bremer hospital includes surgery, internal medicine, paediatrics, obstetrics, gynaecology, trauma and emergency care for inpatients and outpatients (Republic of South Africa, 2015:22). Karl Bremer hospital has a KMC unit that has a bed occupancy of 12 for mothers who provide both continuous and intermittent KMC.

Tygerberg Hospital is the largest hospital in the Western Cape with a bed capacity of 1899 beds. The hospital is a referral base for the drainage areas of the Cape Metropole, West Coast, Cape Winelands and Overberg Municipalities. It is an integral part of the teaching and training platform for the training of health professionals for the four universities, namely, Stellenbosch University, University of Cape Town, University of the Western Cape and Cape Peninsula University of Technology (Western Cape Government Department of Health, 2015:5). The care at Tygerberg hospital is provided by experienced specialist-led teams in the medical disciplines which include general surgery, orthopaedics, general medicine, paediatrics, obstetrics and gynaecology, family medicine, radiology and anaesthetics (Republic of South Africa, 2015:23-24). Tygerberg hospital has two dedicated KMC wards. Each of these KMC wards has twelve beds for mothers who provide continuous KMC. Thus at Tygerberg Hospital, 24 mothers can provide continuous KMC.

3.4 RESEARCH PARADIGM

The research paradigm for this study is the constructivist paradigm. This is also called the naturalistic paradigm. The paradigm asserts that humans create their own experiences and that truth is a construction of realities. Constructivist, therefore, are focused on the understanding of human experience through interaction with participants (Polit & Beck, 2017:11).

Within nursing research there exists two broad paradigms, namely positivism and constructivism. Paradigms are characterised by ontology and epistemology. Ontology is concerned with what the nature of the social world and epistemology is concerned with the nature of knowledge and how it can be acquired (Richie, et. al., 2003:2). The positivist paradigm assumes that reality is driven by a cause and effect relationship. Conversely, constructivism assumes that reality is constructed by individuals and not a cause effect relationship. The constructivist movement began as an opposite movement to positivism by

the writers Kant and Weber (Polit & Beck 2017:11). Immanuel Kant argued that there are ways of knowing about the world other than direct observation. He proposed that knowledge of the world is based on understanding, which arises from reflecting on what happens, not just from having had particular experiences (Richie, et. al., 2003:12). Max Weber argued that there is a key difference in the purpose of understanding between the natural and social sciences. In the natural sciences, the purpose is to produce law-like propositions whereas in the social sciences, the aim is to understand subjective meaningful experiences (Richie, et. al., 2003:13).

Constructivist research is focused on the understanding of human experience through qualitative data collection and analysis. The dynamic, holistic and individual aspect of human life is emphasized in an attempt to capture the whole experience. Constructivist research occurs in the natural setting of the participants over an extended period. Through an inductive process, the researcher integrates the information to illuminate the phenomenon. The findings of the research yields a rich in-depth description of the real life experiences of the participants (Polit & Beck, 2017:12). It is within the constructivist paradigm that the researcher acquired knowledge of the real life experiences of adolescent mothers by allowing the participants to explain their own meanings and perspectives of their lived experiences of providing KMC to their infants.

3.5 RESEARCH METHODOLOGY

A qualitative research methodology was used for this study. Qualitative research is a subjective approach and is used to describe life experiences and give meaning to what the participants' experience. Qualitative research is a way to gain holistic insight by exploring the depth, richness and complexity of a phenomenon (Burns & Grove, 2011:73).

3.6. RESEARCH DESIGN

The phenomenological research design was found to be the best approach for this study. Phenomenology is a discipline that investigates people's experiences. It seeks to explore what the nature or meaning of a phenomenon is from the perspective of those who experience the phenomena. The approach is divided into descriptive phenomenology, which describes experiences and interpretive phenomenology that provides an interpretation of the experiences (Matua & Van Der Wal, 2015:22-23). The descriptive phenomenological approach was used to gain a genuine reflection of the phenomena by exploring, analysing and describing a phenomenon while maintaining its richness, breadth and depth (Matua & Van Der Wal, 2015:22-23). This approach was used for this research since it is the most appropriate approach to achieve the aims and objectives of this study. It has allowed the adolescent mothers, in an individual in-depth semi structured interview, to explain the meaning

of their lived experiences in providing KMC to their infants. This has allowed the researcher to provide an in-depth description of the experiences of the adolescent mothers.

Phenomenology is a discipline that is based on the naturalistic paradigm that presumes that reality is not fixed but based on individual and subjective experiences. This contradicts the positivist paradigm, which asserts that reality is ordered, logical and rational. In phenomenology knowledge is achieved through interactions between the researcher and the participants (Reiners, 2012:1). The phenomenological method aims to investigate meaningful experiences and allows the researcher to critically examine experiences, thereby revealing its embedded meanings and essence (Matua & Van Der Wal, 2015:23). Phenomenology has two approaches, namely, Husserl's descriptive approach, which emphasises the pure description of an experience or Heidegger's interpretive approach, which focuses on interpretation or the meaning of an experience (Matua & Van Der Wal, 2015: 23). An important component of descriptive phenomenology is Edmund Husserl's philosophy that it is essential for the researcher to shed all prior personal knowledge, in order to grasp the essential lived experiences of those being studied. This means that the researcher must actively strip his or her consciousness of all prior knowledge, preconceived ideas as well as personal biases. This technique is known as bracketing (Lopez & Willis, 2004:727-72).

In 2010, the researcher worked in the KMC ward as a student and did not want her preconceived ideas, personal biases and prior knowledge to influence the findings of the research study. Thus, the researcher made a list of the preconceived ideas about the phenomena and consciously reflected on these ideas throughout the data collection and data analysis, to ensure that these ideas did not influence her. The researcher also had debriefing meetings with the study supervisor in which these assumptions were discussed.

The preconceived ideas included the researcher's observation that nurses in the KMC wards did not educate the adolescent mothers on KMC and provided very little physical, emotional and social support. Further, discharge support was often lacking.

3.7 POPULATION AND SAMPLING

Population refers to a particular group of people who is the focus of the intended research (Grove, Burns & Gray, 2013:351). The population that has been focused on were adolescent mothers between the ages of 15 and 19 and their infants who had been admitted to the KMC wards in Karl Bremer and Tygerberg hospitals, which are situated in the Tygerberg health sub district. In South Africa, 30% of 15 to 19 year old adolescents have reported being pregnant (Willan, 2013:7). Consequently, the adolescent 15-19 years old has been the focus of this research study.

The researcher used purposive sampling. In the descriptive phenomenological approach, purposive sampling is used to select individuals to participate in the research study because the individual can provide abundant information (Grove et al., 2013:365). The researcher selected adolescent mothers who had been providing KMC for five days or more, because they could provide the researcher with detailed information about their lived experience in the KMC ward.

The researcher visited the KMC wards twice a week and enquired from the ward nursing staff whether adolescent mothers had been admitted to the ward. The researcher also asked the ward nursing staff to introduce the researcher to the participants. The sample included ten adolescent mothers aged 16-19 years. Nine adolescent mothers were selected at Tygerberg Hospital and one at Karl Bremer Hospital.

While recruiting the first participant, the researcher was informed by the operational manager of the KMC ward, that the mothers are referred to the nearest district hospital when the baby reaches a weight of 1500g. Karl Bremer hospital is the only district hospital in the Tygerberg sub-district. The researcher thereafter visited Tygerberg hospital twice a week to recruit adolescent mothers before they were referred to another district hospital other than Karl Bremer hospital. The researcher visited Karl Bremer once a week but was not able to recruit more than one adolescent mother as the adolescent mothers were already recruited at Tygerberg Hospital before being transferred. During data collection, 20 adolescent mothers providing continuous KMC was admitted to the KMC wards. Five of these mothers were transferred to district hospitals in other sub-districts before they had provided continuous KMC for five days. Five adolescent mothers refused to participate in the study.

The adolescent mothers were selected from different cultural backgrounds, different levels of education and speaking at least one of the three main languages of Afrikaans, English or isiXhosa, which are the main languages for this geographical area. Seven Coloured Afrikaans speaking and three Black isiXhosa-speaking adolescent mothers were selected for the study. In the geographical area, the population is mainly Coloured. During data collection, few adolescents aged 15 to 16 years had been admitted to the KMC wards

Sample size in this proposed study depended on when data saturation had been established. Data saturation occurs when additional information or individuals participating in the study provide repetitive data or information (Grove, et al., 2013: 371). After the researcher had performed eight in-depth individual interviews with the adolescent mothers, data saturation was achieved, but the researcher continued to perform two more interviews to be certain that data saturation had occurred. These two interviews did not yield any new data.

3.7.1 Inclusion criteria

Adolescent mothers aged 15-19 years who had been admitted with their infants to the KMC ward in a hospital for five days or more to provide continuous KMC to their infants.

3.7.2 Exclusion criteria

- Adolescents who have experienced birth complications and require additional physical, medical or psychological support.
- Adolescent mothers who provided intermittent KMC to their infants in a neonatal intensive care unit.

Despite having complications during their pregnancy, at the time of the interviews all the adolescent mothers were in a stable condition. They had all been discharged from the postnatal wards.

3.8 INTERVIEW GUIDE

The data collection method most appropriate for the descriptive phenomenological approach is individual in-depth interviews. Individual interviews are the most widely used method in qualitative research because it provides an opportunity for participants to share their personal experiences and perspectives. This affords the researcher with meaningful detailed information to form an in-depth understanding of the lived experiences of the participants (Ritchie, et al., 2014:181).

The interview guide was drawn up in the three main languages of the geographical area, namely, English, Afrikaans and isiXhosa. In descriptive phenomenology, the first few minutes of an interview is crucial for establishing the relationship between the researcher and the participant to ensure a successful in-depth interview (Ritchie, et al., 2014:187). Introductory questions were first used to establish a rapport with the adolescent mothers and to encourage them to feel comfortable.

Interviews are described as interactions that occur between the researcher and the participant that provide data in the form of words. In an interview, the researcher investigates or obtains information from different individuals. Semi-structured interviews are defined as interactions or conversations between the researcher and the participants where there is not a set of fixed, predetermined questions by the researcher (Grove, et al. 2013:271). The researcher used a semi-structured interview guide to perform individual in-depth interviews for data collection. An example of the interview guide is provided in Appendix A. The semi-structured interview guide includes open-ended and probing questions. The open-ended questions reveal the belief or experience of the participant. An example of an open-ended question is, "What are

your experiences in providing continuous KMC to your infant?” The participant was encouraged to respond to the open-ended question. The probing questions were then used to explore the experience in more detail. Probes are gestures or prompts made by a researcher during an interview to ascertain further information from the interviewee (Burns & Grove, 2011:85). An example of a probe used was, “Explain to me the ward routine and other activities in the ward?” Using open-ended questions and probes has allowed the researcher to gain extensive explicit data from the participants (Ritchie, et al., 2014:190).

3.9 PILOT INTERVIEW

The researcher conducted one interview with an adolescent mother as per the inclusion criteria. The pilot interview occurred in an office in the ward and the door was closed to allow for privacy and lasted 45 minutes. The pilot interview was conducted to ensure that questions in the semi-structured interview guide were clear and to refine the interview skills of the researcher.

The study supervisor assessed the interview skills of the researcher and provided feedback. Both the researcher and supervisor agreed that another introductory question should be posed to allow the adolescent mother to feel more relaxed and comfortable in order to establish a trust relationship. The introductory question that was added was “Tell me about yourself and your family”. This question allowed the adolescent to feel that the interview was about her and not merely about gaining information from her. Further, the introductory question that was added allowed the participant to volunteer the demographical data rather than the researcher asking closed-ended questions. The supervisor also gave valuable feedback on the interview skills of the researcher and reminded the researcher to bracket more and to make use of silent pauses to allow the adolescent time to think and answer. The pilot interview yielded very valuable data and was included in the data analysis.

3.10 RIGOUR OF THE STUDY

The goal of rigour in qualitative research is to represent the experiences of participants accurately. In 1989, Guba and Lincoln identified the overall goal of trustworthiness, consisting of credibility, transferability, dependability and confirmability (Morse, 2015:1212). The researcher sought to satisfy the four criteria of credibility, dependability, confirmability and transferability. Each of these terms are discussed below.

3.10.1 Credibility

Credibility involves generating confidence in the truth-value of the findings of qualitative research. The researcher applied bracketing, prolonged engagement, member-checking and peer debriefing to ensure credibility (Barusch, Gringeri & George, 2011:12).

The researcher applied bracketing by consciously setting aside her preconceived ideas and assumptions of the phenomena to exclude previous knowledge and preconceptions and to focus on what the participants were describing during the semi-structured interviews (Lopez & Willis, 2004:727-72). An in-depth review of the literature was only conducted after data collection and analysis, to ensure that the true experiences of the participants were reflected. The process of bracketing allowed for the true lived experiences of the adolescent mothers to be identified during the interviews. The researcher also kept a reflective journal after each interview, that assisted the researcher in her reflections on whether bracketing was successfully implemented during the interviews.

Prolonged engagement in qualitative research requires that a researcher spend sufficient time in a setting to develop a trust relationship (Barusch, et. al., 2011:12). The researcher recruited the participants on one day and conducted the interviews on another day. On the day of the recruitment, the researcher introduced herself to the prospective participant and explained the research study. The participant was given time to read the information leaflet and ask questions about the research. An appointment was scheduled with the participant for the interview on another day. This facilitated a rapport and trust relationship between the participant and the researcher. On the day of the interview, the researcher initially had a casual conversation with the participant before starting the interview. The interview guide had introductory questions that encouraged the participant to talk about herself. The introductory questions not only helped to make the participant comfortable and relaxed, but also further established rapport and a trusting relationship. The interviews with the participants for lasted for at least 40 minutes, which ensured prolonged engagement and rich data collection.

Member-checking is the process by which the accuracy of the data is checked with the participant. This can occur during and after the interview (Shenton, 2004:68). During the interviews, the researcher used probing questions and reflective questioning by rephrasing questions to clarify and confirm information provided by the participant (Shenton, 2004:68). Probes were also used to obtain more detailed data and reflective questioning allowed the researcher to return to information already mentioned by the participant and to obtain more information. After the interview, the audio recording of the interview were transcribed verbatim (Barusch, et al., 2011:13).

Peer debriefing was achieved by reviewing interviews with the study supervisor (Brink, et al., 2008:118). The researcher and the study supervisor made use of co-coding of four interviews when analyzing the data. Coding is the process of breaking the data into sub parts and labelling them representatively (Burns & Grove, 2007:94).

3.10.2 Dependability

Dependability is the process by which an audit is performed by a peer to ensure that the processes and procedures used by the researcher are acceptable (Brink, et al., 2008:118). The researcher ensured dependability by adhering to and documenting all steps and activities of the research process. The interviews conducted with participants followed the same semi structured interview guide. Dependability was further achieved by having the transcriptions reviewed and verified by the supervisor and researcher (Cypress, 2017:258).

3.10.3 Confirmability

Confirmability ensures that the findings, conclusions and recommendations are supported by the data (Brink, et al., 2008:118). Bracketing was used to identify and set aside pre-existing ideas and information about the phenomenon to ensure the true lived experience of the participant was reflected in the data (Burns & Grove, 2007:96). The researcher in the proposed study ensured confirmability of data by having all transcripts verified by the study supervisor. The researcher also kept an audit trail of how themes and sub-themes were decided. The researcher documented in a reflective journal additional perceptions and recollections from the interviews (Cypress, 2017:258).

3.10.4 Transferability

Transferability involves rendering a deeply detailed account of the study findings so that readers can judge the work's potential for application to other times, places, people and contexts (Barusch, et al., 2011:13). Participants were selected who could provide a detailed account of their experiences in the KMC ward. The researcher selected participants as per the inclusion criteria and used purposive sampling to ensure that the participants who were selected were able to provide abundant information. The researcher ensured that all activities were described richly and intensively in the research documentation. The researcher pursued data collection until data saturation was achieved to ensure all relevant information was obtained in the research study (Cypress, 2017:258). The findings of this study are discussed to illustrate the similarities and differences with studies conducted in other contexts.

3.11 DATA COLLECTION PROCESS

The researcher was trained in qualitative interview skills. The main languages in the geographical area are: English, Afrikaans and isiXhosa. The researcher is fluent in English and Afrikaans and performed the English and Afrikaans interviews. The isiXhosa-speaking participants were given the opportunity to be interviewed in isiXhosa. However, all of them declined because they were all fluent in English and therefore the interviews occurred in English.

The researcher visited the KMC wards twice a week to establish whether adolescent mothers had been admitted to identify potential participants for the research study. The researcher had thus no prior contact with the adolescent mothers and therefore had no knowledge of their experiences in the KMC ward. The researcher approached the operational manager in the ward and enquired whether adolescent mothers had been admitted. The researcher also asked the operational manager to introduce the researcher to the prospective participant. The participants were recruited on a separate day to the interviews. Recruitment was done in a private room. The participants were given an opportunity to read the information leaflet and any questions they had were answered. Thereafter written informed consent was obtained from all the participants in the presence of a witness. The venue and time for the interview was at the preference of the participants and did not disrupt the normal ward routine of the ward.

Before commencement of the interviews the participants were informed that they could withdraw from the interview at any time during or after the interview. They were also informed that should they withdraw, the information given by them would not be used in the study. The information leaflet was given to the participants with the contact details of the researcher and supervisor so that they could contact the researcher or supervisor should they wish to withdraw. None of the participants withdrew from the study. Interviews were conducted and audiotaped in a private, quiet room to prevent disruptions and to maintain privacy. The room used for the interviews was arranged so that the participant and researcher sat facing each other. Prior to each interview, the researcher and participant engaged in casual conversation to allow the participant to feel comfortable and build a rapport between the researcher and the participant.

Data collection occurred through individual interviews, using a semi-structured interview guide and probing questions. Semi-structured interviews, where the researcher has some predefined questions and probes produce powerful data that provide insights into the participants' experiences, perceptions or opinions (Peters & Halcomb, 2015:6). During the interviews, the researcher used reflection and summarizing to obtain additional data and verify the information given by the participant. Closed-ended questions were also used to confirm information. The interviews continued until the researcher had obtained adequate data and the participant did not provide the researcher with any new information.

After the interviews, the researcher documented reflections of the interview in a reflective journal. These reflections included information on recollection of the interview in general, the body language of the participants and any other perceptions. Audio recordings were saved on the researcher's personal computer and password protected. Numbers were used during the transcription of interviews and findings to protect the identity of the participants involved

in the study. The duration of the interviews was between 30 and 90 minutes. This ensured that the researcher obtained adequate data. The data was collected over 20 weeks.

3.12 DATA ANALYSIS

Data analysis involves identifying emerging themes and categories of each case but also conducting cross-case analysis (Ritchie & Lewis, 2003:4). During the analysis phase, every attempt was made to document all aspects of the analysis. Analysis in qualitative research refers to the categorization and ordering of information in such a way as to make sense of the data and to writing a final report that is true and accurate. After categorising and making sense of the transcribed data, all efforts were exhausted to identify themes as they emerged (Cypress, 2017:258).

Colaizzi's (1978) phenomenological method of data analysis was used to analysis the data (Mackenzie, 2009:27). This method of data analysis is appropriate for the descriptive phenomenological research approach to achieve the description of the experiences of adolescent mothers (Edward & Welch, 2011:169).

The steps are:

1. The audiotapes were immediately transcribed verbatim after the interview and the transcript was read and listened to in its entirety to gain a sense of the whole.
2. Significant statements were extracted from each transcript.
3. Meanings were formulated as they emerged from the significant statements using significant insight.
4. The formulated meanings were organised into clusters of themes. The clusters of themes were validated by referring back to the original transcript to ensure no data had been ignored.
5. The results were integrated into an exhaustive description of the topic being studied.
6. The essential structure of the phenomenon was formulated.
7. The researcher was unable to validate the descriptive findings with the participants to confirm if the essential structure described their experiences. When data analysis was complete, the participants had already been discharged from the KMC ward and the attempt to contact the participants telephonically failed. However, during the interviews, the researcher clarified and confirmed the information by using probing questions, summarising and reflective questioning.

Each of these steps is discussed in detail below.

3.12.1 Transcription of all interviews then reading and re-reading (immersion into data) of transcriptions

Transcription of interviews refers to the copying by writing down or typing of audio-recorded interviews word for word (Burns & Grove, 2011:93). After each interview, the researcher listened to the audio recording. The researcher had the audio recordings of the interviews transcribed soon after each interview was conducted, which further allowed her to become familiar with the data. The interviews were transcribed verbatim by a transcriber who was required to sign a confidentiality declaration. On receiving the transcriptions, the researcher compared the transcriptions with the audio recordings and made corrections where applicable. The transcriptions were read and reread and the audio recordings were listened to by the researcher to become immersed in the data. This assisted the researcher to acquire a sense of the participants' experiences. The supervisor also listened to, read, and checked the transcriptions of four participants.

3.12.2 Extraction of significant statements

Significant phrases and statements pertaining to the experiences of adolescent mothers on providing KMC to their infants were extracted from the transcriptions. The researcher highlighted these significant statements in each participants' transcription. The significant statements extracted were related to the study objectives, but the researcher also extracted statements that were meaningful and contributed to the vivid description of the lived experience of the adolescent mothers from their pregnancy to providing continuous KMC.

3.12.3 Meanings attached to significant statements

Meanings were then formulated from the extracted significant statements. The meanings were formulated by comparing the extracted statements and the individual participants' transcripts to ensure that the essence and meaning were accurately captured. These meanings were not too specific to allow for further analysis and comparison, but provided a description of the essence of the lived experience.

3.12.4 Statements categorised into clusters of themes

Similar meanings were grouped together and then grouped further to form clusters or subthemes. Sub-themes were grouped into main themes. Three main themes were identified with nine sub-themes. This process was reviewed by the supervisor, which increased the rigour of the study. Care was taken to ensure that themes and sub-themes accurately captured the essence of the phenomenon that emerged from the transcriptions, but also addressed the research objectives.

3.12.5 Exhaustive description

The researcher organised and gathered all the themes into an exhaustive description of the lived experiences of the participants. The themes were described in context using the subthemes and formulated meanings to validate the description. The phenomenon was described by also using the participants' verbatim quotations to substantiate the themes and sub-themes extracted. The exhaustive description was portrayed in such a way to allow the reader to gain an understanding of the phenomena portrayed. The description was then reviewed by the study supervisor for validation to ensure that the exhaustive description captured all the elements of the phenomenon as described by the participants. This process was implemented to ensure that the content was vivid and no aspects of the lived experience were excluded from the description.

3.12.6 Essential structure of phenomenon was formulated

The exhaustive description was reduced to an essential structure by removing redundant descriptions and revealing the key findings of the phenomena. This was accomplished by implementing an iterative process of moving back and forth between the raw narratives, formulated meanings, sub-themes and main themes. The raw narrative clarified how the subthemes were related to each other. This allowed the researcher to generate clear relationships between themes, the sub-themes and formulated meanings. Any differences in the experiences were highlighted and included in the description.

3.12.7 Validation of findings

The descriptive results should be returned to the participants to confirm if the analysis describes their experience. The researcher was not able to perform this final step. When data analysis was complete, the participants had already been discharged from the KMC ward and the attempt to contact the participants telephonically failed. However, during the interviews the researcher used probing questions and reflective questioning by rephrasing questions to clarify and confirm information given by the participants. The researcher acknowledges that this omission could reduce the rigour of the study.

The application of the last step of Colaizzi's framework has been contended by some academics. Morse (2015:1216) argues that it is not clear why the participants should be provided with an opportunity to change their minds. If the participant does not agree with the analysis, this may place the researcher in a difficult position. The analysis is a synthesis of all the interviews and therefore, it is unlikely that a participant would recognize their own story in the combined text. If the participant does not think the analysis is a true reflection of their experience, the researcher has to change the text to whatever the participant thinks it should be or discard that part of the analysis. The researcher's background in theory and research

methods should surpass the participant as a judge of the analysis. Therefore, member checking as a strategy to confirm the final analysis is not recommended (Morse, 2015:1216).

3.13 SUMMARY

The aim of this research study was to explore the experiences of adolescent mothers on providing continuous KMC for their infants in a KMC ward in a hospital. A qualitative research approach with a descriptive phenomenological design was used to explore the experiences of 10 adolescent mothers through individual in-depth interviews. The participants were purposively selected from the KMC wards at Karl Bremer and Tygerberg hospitals. The interviews were audiotaped in a private room in the wards where the adolescent mothers were admitted to provide continuous KMC to their infants. The rights of participants were protected by incorporating the ethical principles of protection of human rights of the Declaration of Helsinki of 2013 (World Medical Association Declaration of Helsinki, 2013:2191-2194). Written informed consent was obtained prior to doing the interviews. Rigour of the study was ensured by satisfying the four criteria of credibility, dependability, confirmability and transferability. Data was analyzed concurrently with data collection (Burns & Grove, 2001:591). Data analysis was performed by using Colaizzi's (1978) method (Mackenzie, 2009:27).

The next chapter will discuss the findings of the study that emerged from the interviews.

3.14 CONCLUSION

The qualitative research approach with a descriptive phenomenological design was the most appropriate approach to achieve the aim and objectives of this research study. This approach has allowed the researcher to explore and describe the lived experiences of adolescent mothers while providing continuous KMC for their infant in a ward in a hospital.

CHAPTER FOUR

FINDINGS

4.1 INTRODUCTION

The findings of the experiences of adolescent mothers providing continuous kangaroo care are discussed in this chapter. The interviews with the adolescent mothers were recorded and transcribed verbatim. The interviews were then analysed using Colaizzi's method of data analysis by extracting themes and subthemes as described in chapter 3.

The findings are described under two sections. Section A describes the demographical data and section B describes the themes and subthemes that were induced from the interviews.

4.2 SECTION A: DEMOGRAPHICAL DATA

A total of ten adolescent mothers were interviewed using a semi-structured interview guide. Participants were recruited at both Tygerberg and Karl Bremer hospitals. In the Tygerberg sub-district, pregnant woman in preterm labour are referred to Tygerberg hospital for delivery and when the infant has reached a weight of 1500g, they are referred to Karl Bremer hospital or another district hospital which is closer to the woman's home address. Only one participant was thus interviewed at Karl Bremer hospital and nine adolescent mothers were interviewed at Tygerberg hospital.

In the geographical area in which the hospitals are situated, the population is mainly of the Coloured ethnic group. The study consisted of seven Coloured and three Black participants. The demographical data was obtained either during the recruitment, during interviews or after the interviews. The ages of the adolescent mothers ranged from 16-19 years. A summary of each participant's demographic information is presented below.

Participant one is a 19 year old, single, Coloured adolescent who is Afrikaans-speaking and her highest level of education is grade eight. This is her first pregnancy. She delivered a live female infant at Tygerberg Hospital on the 9th May 2017 at 32 weeks and 4 days gestation by caesarean section for foetal distress. The birth weight of the infant was 1400g. The infant was admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 10 days. Her family was not able to visit her while she was admitted to hospital due to financial constraints.

Participant two is 18 years old, single, Coloured, Afrikaans-speaking and her highest level of education is grade eleven. This is her first pregnancy. She had planned the pregnancy. She

delivered a live female infant at Tygerberg Hospital on the 18th April 2017 at 32 weeks gestation by caesarean section for unexplained preterm labour and foetal distress. The birth weight of the infant was 1220g. The infant was admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 14 days.

Participant three is a 19 year old, single, Black adolescent who is isiXhosa-speaking, but spoke fluent English. Her highest level of education is grade twelve. This is her first pregnancy. She had had an intra uterine device inserted that was ineffective. She delivered a live female infant at Tygerberg Hospital on the 1st May 2017 at 31 weeks and 5 days gestation by caesarean section for pre-eclampsia and foetal distress. The birth weight of the infant was 1000g. The infant was admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 5 days.

Participant four is 19 years old, single, Black, isiXhosa-speaking, but spoke fluent English. Her highest level of education is grade eleven. This is her first pregnancy. She delivered a live female infant at Tygerberg Hospital on the 17th June 2017 at 34 weeks gestation by normal vertex delivery. She was transferred to Tygerberg Hospital for eclampsia and her labour was induced. The birth weight of the infant was 1780g. The infant was admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 5 days.

Participant five is a 19 year old, single, Coloured adolescent who is Afrikaans-speaking and her highest level of education is grade six. This is her first pregnancy. She delivered a live male infant at Tygerberg Hospital on the 16th April 2017 at 35 weeks gestation by caesarean section for foetal distress. The birth weight of the infant was 1610g. The infant was admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 7 days. Before and during her pregnancy, she had been living with her boyfriend of 28 years and both of them were using recreational drugs. She had been referred to the social worker and when discharged the infant will be placed in foster care with her aunt.

Participant six is 18 years old, single, Coloured, Afrikaans-speaking and her highest level of education is grade twelve. This is her first pregnancy. She delivered live twins at Tygerberg Hospital on the 21st June 2017 at 32 weeks gestation by caesarean section for a breech and transverse lie. The birth weight of the infants were 1010g and 1050g respectively. The

infants were admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 5 days.

Participant seven is a 19 year old, single, Coloured adolescent who is Afrikaans-speaking and her highest level of education is grade nine. This is her first pregnancy. She delivered a live female infant at Tygerberg Hospital on the 26th May 2017 at 32 weeks gestation by caesarean section for gestational hypertension. The birth weight of the infant was 1020g. The infant was admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 8 days. Her boyfriend had been incarcerated when she delivered and at the time of the interview, he was an inpatient at Tygerberg hospital for a gunshot injury.

Participant eight is a 16 year old, single, Coloured adolescent who is Afrikaans-speaking and her highest level of education is grade eleven. This is her first pregnancy. She delivered a live female infant at Tygerberg Hospital on the 29th May 2017 at 25 weeks gestation with a breech delivery. She went into unexplained preterm labour and was treated as a miscarriage, but on delivery the infant was fully developed and breathing. The birth weight of the infant was 915g. The infant was admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 15 days.

Participant nine is 17 year old, single, Coloured, Afrikaans-speaking and her highest level of education is grade eight. This is her second pregnancy. Her first pregnancy was a preterm infant for whom she also provided continuous KMC. This infant however died a year ago due to sudden infant death syndrome. She delivered a live female infant on the 5th July 2017 at a Midwife Obstetric Unit at 33 weeks and 5 days by normal vertex delivery and was transferred to Tygerberg Hospital because the infant was preterm. She went into unexplained preterm labour. The birth weight of the infant was 1660g. The infant was admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 5 days.

Participant ten is a 17 year old, single, Black adolescent who is isiXhosa-speaking, but spoke fluent English. Her highest level of education is grade ten. This is her first pregnancy. She delivered a live male infant at Tygerberg Hospital on the 1st October 2017 at 32 weeks and 4 days gestation by normal vertex delivery. She was transferred to Tygerberg Hospital for gestational hypertension and labour was induced. The birth weight of the infant was 1715g.

The infant was admitted to a neonatal ward post-delivery where she commenced intermittent KMC and thereafter provided continuous KMC in the KMC ward. At the time of the interview, she had been providing continuous KMC for 7 days.

4.3 SECTION B: THEMES EMERGING FROM THE INTERVIEWS

Three major themes were identified by the researcher during data collection and data analysis. These themes form the essential structure of the experience of the adolescent mothers. The themes and subthemes are depicted in Table 4.1 and the meanings formulated are depicted in Table 4.2.

Table 4.1 Themes and Subthemes

Themes	Subthemes
4.3.1. Becoming and being a mother.	<ul style="list-style-type: none"> • Feelings about pregnancy • Caring abilities of the adolescent mother
4.3.2. KMC: Being cared for and caring for	<ul style="list-style-type: none"> • Understanding of KMC • Interactions and relationships in the ward • Experience of providing KMC
4.3.3. Ineffectual support	<ul style="list-style-type: none"> • Physical support • Emotional support • Social support • Discharge support

Table 4.2 Subthemes and meanings formulated

Subthemes	Meanings formulated
Feelings about pregnancy	<ul style="list-style-type: none"> • Shocked, disappointed and ashamed about the pregnancy • Acceptance of pregnancy and motherhood • Complication of the pregnancy • Feelings about a preterm infant
Caring abilities of the adolescent mother	<ul style="list-style-type: none"> • Establishing bonding • Caring for a baby • Understanding the care of a preterm infant
Understanding of KMC	<ul style="list-style-type: none"> • Knowledge and benefits of KMC • Understanding the practice of KMC
Interactions and relationships in the ward	<ul style="list-style-type: none"> • Good interaction with doctors • Good interaction with other mothers • Feels some nurses are caring • Feels some of the nurses are not approachable • Feels some nurses have a lack of empathy and understanding • • Feels nurses are disrespectful
Experience of providing KMC	<ul style="list-style-type: none"> • Intermittent KMC • Accepted providing KMC • Feels that KMC teaches you to be a mother • Frustrated when the infant does not gain weight • Feeling unhappy about feeding times • Feeling bored and frustrated because there are no activities
Physical support	<ul style="list-style-type: none"> • Requirements for the infant • Receives information from doctors about the care and condition of the infant • Other mothers assist with care of the infant • Feels that nurses can assist more with care of the infant • Requirements for adolescent mothers • Lack of care of the adolescent mother by nurses
Emotional support	<ul style="list-style-type: none"> • Feeling sad and alone in hospital • Isolates herself when sad • Does not trust anyone to confide in • Received emotional support from partner and family • Received emotional support from nurses

Subthemes	Meanings formulated
Social support	<ul style="list-style-type: none"> • Referred to social worker due to being an adolescent • Received social support from social worker • Perceived social worker as a threat that her baby will be taken away
Discharge support	<ul style="list-style-type: none"> • Received discharge information from the doctor • Received discharge information from the nurses • Received discharge information from the social worker

4.3.1 Theme one: Becoming and being a mother.

This theme discusses the participants' feelings about being pregnant, their experience of delivering a preterm infant and their feelings about being a mother. Becoming and being a mother is discussed under two subthemes, namely, how the adolescents felt about their pregnancy and the caring abilities of an adolescent mother. The adolescent mothers all had their first pregnancy experience except one who was pregnant for the second time. Pregnancy during adolescence could involve both medical and psychosocial problems. Negative feelings about the pregnancy may be compounded by traumatic events during labour and delivery. These experiences may affect bonding with their infants and their ability to provide care for the infants. Their caring ability for a preterm infant may further be affected by feelings of helplessness since when they see their infant for the first time, the infant is in an incubator.

4.3.1.1 *Feelings about pregnancy*

The adolescent mothers were shocked, disappointed and ashamed about the pregnancy. The feelings of disappointment and shame were because they felt they were too young to have a baby, were still at school or that they have disappointed their parents by being pregnant.

I was very shocked, but what could I do? I just had to accept it. (Participant 1)

That I fell pregnant at 19 years of age and I had to leave school. My parents were angry at me. (Participant 4)

Similarly, the adolescent mother who had twins was shocked and disappointed but it took her a longer time to accept the pregnancy.

Very shocked. I had not expected it and I was very emotional and found it difficult to accept. It has taken a long time for me to get used to it. But afterwards, I was very stressed. I have stressed about everything in the house. Then my mother encouraged me. At the end of the day I accept the pregnancy, I'm going to

become a mother, and I have to do it. It is not the babies fault, they have also not asked to be here. (Participant 6)

The adolescent mother who had her second pregnancy reported that she accepted the pregnancy because it was her second pregnancy.

I actually knew I was pregnant, but I went to book late at the clinic. I accepted the pregnancy. I'm used to it, because it's not my first baby, it's my second baby. (Participant 9)

Most of the adolescents did not expect to fall pregnant even though they had not used a contraceptive method.

No, I was not using a condom. That's why I was disappointed. (Participant 10)

One of the adolescent mothers mentioned that she had planned the pregnancy since according to her, she is in a stable relationship. She therefore accepted the pregnancy.

Ok, I then accepted that I was pregnant, because the two of us wanted to have a baby. We had planned to have a child. (Participant 2)

Another adolescent mother's had used contraception that was ineffective. She expressed that she felt sad and disappointed because she had used contraception and had plans to study.

No, I had an IUD [intrauterine device] inserted. So I went for a check-up but they first...they saw it...that it has moved, now they decided to do the pregnancy test. And I was five months pregnant. It makes me feel so sad. Because now I've got accepted from NMMU...the University in PE. (Participant 3)

Most of the adolescent mothers were disappointed about the pregnancy but later accepted the pregnancy. Some expressed that they had no other choice but to accept the pregnancy and motherhood, while others were still in the process of accepting that they have become a mother.

I have not felt it yet, to be a mother. Maybe I am going to feel it when I am at home, is when I am at my own [sic]. (Participant 4)

All the participants developed complications in the pregnancy, which resulted in a preterm delivery. Six of the adolescent mothers went into unexplained preterm labour and four of the mothers developed hypertension complications in the pregnancy. Both these conditions are complications of an adolescent pregnancy that may result in a preterm infant. The adolescent

mothers were confused when they developed these complications, because they did not understand what was happening.

I do not know what happened. It was a Sunday. I just came from his father's [her boyfriend's] home. I wanted to go to the toilet. I was then on the toilet but it seems that something was pressing on my bladder but it just doesn't want to come out that moment, but I pressed and pressed. I then went to my mother and told her that I think that I'm going into labour and it's when we rushed to the hospital, the day hospital. (Participant 8)

Yes, but I went to [the] clinic, they checked my blood pressure there, they saw it was high. So just...it was an emergency. It just got high [sic] and I had a seizure and I was rushed to KDH [Khayelitsha District Hospital] and KDH transferred me here. (Participant 3)

Most of the adolescent mothers experienced fear, disappointment and dissatisfaction about the preterm delivery and were concerned about the well-being of the preterm infant.

The child is too small to be born on this date. I felt disappointed. I have asked: "How do you mean my child is too small? Is my child alive in my stomach or not?" I asked them, because I was scared. (Participant 2)

But I did not want to deliver, because I did not want them to fetch my baby because it was too early. I delivered at 32 weeks, I gave birth, and I was dissatisfied with this because I did not want them to fetch my baby, because could she not have stayed in me, until her full nine months? (Participant 7)

The participants therefore experienced various feelings and emotions related to being pregnant, coping with a traumatic delivery and the care of a preterm infant. These feelings were mostly initially negative, including shock and disappointment regarding the pregnancy and the events related to the delivery. Most of the participants however appeared to have managed these feelings and accepted being a mother of a preterm infant.

4.3.1.2 Caring abilities of the adolescent mother

In this study, it was observed that the adolescent mothers were not able to care for their infants post-delivery because they may not hold their infants on the first day, particularly if they had a caesarean section. When the adolescent mother saw her infant for the first time, the infant was in an incubator. Preterm infants are initially either admitted to a neonatal ward for observation or a neonatal intensive care unit depending on whether they require specialist

care. Some of the adolescent mothers were sad, disappointed and could not believe that the infant was so small.

And the next day they took me to my child. When I came to my child, I asked: "But why is she so small? No, it's not my child!" Then the sister said: "Do you want to maybe hold your child?" I told her: "Jo! How can I hold the child, the child is so small?" (Participant 2)

Some mothers doubted their ability to care for their preterm infants, especially during the time when the infant received care in an incubator.

The second day on the 2nd of May. Ja [yes], when I saw her in the incubator with oxygen... I tried to hold her but the sisters were saying that she will throw-up and stuff. I cried because...I didn't know how I felt. My heart was heavy. I was hopeless because of the oxygen. (Participant 3)

The adolescent mother, who had twins, when she saw her infants for the first time, could not believe that she had given birth to them. She was happy to see them, but was concerned whether her infants would survive because they were so small and had heart complications.

Did I really carry two infants? It feels impossible. I felt happy. I'm just thankful that they are alive, they were both on oxygen and their hearts were weak. I thought one of them or both would not make it. (Participant 6)

The caring abilities of the adolescent mothers originated from prior knowledge of caring for an infant because they have cared for either younger siblings or infants of family members. They were also guided by knowledge received from the other mothers and less often by the nurses.

Because I have cared for my mother's child...my younger brother. (Participant 1)

We were told nothing because we got the information from the other mothers saying that when they are in the KMC then you feed your baby there. So ja [yes], that's all they told us...from the other mothers. But from the sisters nothing. (Participant 3)

Despite having and receiving this knowledge to care for the infant, the adolescent mothers felt afraid that they would hurt the infant and had to gain confidence in caring for a preterm infant. Repeated encounters of caring for their infants increased the adolescent mothers' confidence and they were more likely to accept motherhood.

I was afraid yes, because how do I... every time I asked the sisters "Is it right what I'm doing? Am I not hurting him? Am I hurting him by holding him?"
(Participant 1)

When I started feeding her and started talking with her I'm your mother and so... and if the... the sisters tell me give your child here and it looks like my child...all these things has made me realise...I am now a mother. (Participant 2)

Caring for a preterm infant was challenging for the adolescent mothers. The adolescent mothers generally doubted their caring abilities at first, but being allowed to care for the infant independently and receiving informational support primarily from other mothers in the KMC ward enhanced their confidence. Acquiring self-confidence in caring for their preterm infants, allowed them to accept motherhood.

4.3.2 Theme two: KMC: Being cared for and caring for

The adolescent mother will require care in the KMC ward, for her to be able to provide care for her infant. The theme of KMC: being cared for and caring for is discussed under three subthemes, namely, understanding of KMC, interactions and relationships in the ward and experience of providing KMC. In the selected hospitals, KMC is provided intermittently and continuously. Intermittent KMC is provided when the baby is in either in a neonatal ward or neonatal intensive care unit (Western Cape Department of Health, 2011:34). In this study, the participants were interviewed when they had been practising continuous KMC in a KMC ward for five days or more. In the KMC ward, the adolescent mothers interacted with the other mothers and the healthcare personnel while they experienced providing KMC for their infants.

4.3.2.1 Understanding of KMC

The understanding of KMC includes the knowledge, the benefits and the practice of KMC. Only the adolescent mother who had a previous experience of providing KMC had prior understanding of KMC. Most of the adolescent mothers did receive information and were shown how to practice KMC from nurses. They appeared to have a good understanding of the practice of KMC.

I thought what KMC is, but I had asked one... one of the sisters what is KMC and how should I do it now? She said to me I just have to put the baby between my breasts with a nappy on and naked body and I had done it so. (Participant 1)

Some of the adolescent mothers read the information about the benefits of KMC on posters in the KMC ward.

I have noticed it myself and then I saw on the board. It's that the baby can grow, that he can become bigger and can go home sooner. Because he is not ready to be in the world. That's why the KMC makes him grow. (Participant 8)

Others comprehended the information about some of the benefits of KMC while practising KMC.

Uhm to give your child the warmth from you [your body] to your child, because she should still have been in your stomach. And it helps the child to grow ... grow bigger. And to give your love to her...so that she knows who her mother is. (Participant 2)

Conversely, some of the adolescent mothers were confused or lacked understanding of the reason for and benefits of KMC because they had not received adequate information.

I don't even know what KMC stands for. They [nurses] have not even said that. (Participant 7)

All the adolescent mothers were provided with information by the nurses about how to prevent infection to the infant by washing their hands and using antiseptic spray. All the adolescent mothers were aware of the risks of infection.

Yes, that's what I heard from the nurses, if I go out and come back in, then, then I need to wash my hands. Yes, they should be washed 24/7. If you change the kimbie [nappy] you should wash your hands, if you go to the kitchen, you should wash your hands, you wash your hands all the time... For the germs and such. I can transfer it to my baby. Baby can get it [germs] and become sick, or I don't know what can still happen. (Participant 7)

The emphasis of the information provided about KMC was on the practice of KMC and the importance of preventing infection. All the adolescent mothers were able to practice KMC after they had received the information. There was however a lack of information given about the benefits of KMC. It is essential that all mothers who provide KMC receive information about KMC and its benefits so that they will understand the importance of practicing KMC.

4.3.2.2 Interactions and relationships in the ward

In the KMC ward, the adolescent mother interacts with the doctors, nurses the other mothers and occasionally with the housekeeping staff. In the KMC wards, there are eight beds with mothers of different ages. The adolescent mother spends most of her time within this ward. Most of the adolescent mothers responded that they had good interactions with the other mothers. Initially the interaction with the other mothers was uneasy because they did not know

each other. The interactions with the other mothers related primarily to caring for the infant. However, as the relationship grew, they started developing friendships.

It's a bit better now. Now that I know everyone, now so I feel a little better, but the first time I did not feel good, because the other mothers had not spoken with me, but we now have now a good connection. (Participant 2)

Jo! We are having a lot of fun with the other mothers. We tease each other, ja [yes], we getting along very good here. (Participant 4)

Only one adolescent mother felt uncomfortable interacting with the older mothers because she was younger, while the adolescent mother of 17 years old, who had her second experience of motherhood, identified with the older mothers.

I talk with them [older mothers], yes. But, for me it feels so uncomfortable. (Participant 1)

I feel I am just as old as them [older mothers]. (Participant 9)

All the adolescent mothers expressed that they had good interaction with the doctors, medical students and housekeeping staff. Interactions with the doctors and medical students were mostly more formal and related to asking questions about the care and condition of the infant.

No, the doctors are fine. If you ask them questions they answer you and they also ask you if you have questions or so. They do not just walk out. They write in the folders and explain to you. They are fine and so, the students are also fine. They also ask you... They are fine. (Participant 2)

Interactions with the housekeeping staff were on a social level. The adolescent mothers had humorous interludes with the housekeeping staff. These interactions appeared to normalise the experience of being admitted in the KMC ward and provided distraction from negative feelings.

The cleaner, she's very funny. When you go to eat, you even forget some of the bad things. (Participant 4)

Some of the adolescent mothers had a good interaction with the nurses and felt that the nurses supported them and taught them the skills to care for the infant. The interaction of the adolescent mothers with the nurses was a supportive-educative relationship.

It's been great, because they are taking care of us, making us feel at home and stuff. Here I have learnt that they are teaching us to be on our own, how to take care of our children, how to feed our children, like how to take care of ourselves when we are mums and stuff. (Participant 4)

Other mothers felt that the nurses could be assisting them more. The adolescent mothers were confused about the care of the infant and relied on the nurses to assist and support them. The nurses however were not always available to support the adolescent mothers and some adolescent mothers felt that the nurses were not assisting them enough in order for them to learn to care for their infants.

Uhm I can say... I am young. I know now... I know what is going on now but previously I did not know so many things. Then I think that the nurses must be there every two hours when we feed the infants to see how we feed the infants... are we doing it right, but they are never here. (Participant 2)

A few adolescent mothers felt that certain nurses were judgemental, disrespectful, displayed a lack of empathy and were unapproachable. This made the adolescent mothers feel discouraged, frustrated and hopeless.

She [nurse] doesn't ask, she doesn't want to hear your side of the story. She says what she wants to say. I can't talk back because she's older and sometimes I feel like she doesn't think of other people, she just do what she likes. The sisters can be more friendly. If they would think that...they would take us as if we are their own daughters, ja [yes]...If they can just understand the situation like...because they were once teenagers also...they understand there are mistakes in life...if they would just understand that and not make fun of us. Because they would say to some...to some of us: "Why did you get pregnant? You know...you know about poverty. You just wanted the social grant money. That's why you got pregnant." (Participant 4)

They [nurses] do not explain nicely and they never explain anything to you, now why should I still ask? (Participant 7)

Some of the interactions with the nurses resulted in conflict due to feeling hopeless and frustrated about the challenges of caring for a preterm infant. One of the adolescent mothers was frustrated about not being able to breastfeed her infant. The infant had a nasogastric tube that came out.

Then she [nurse] asked me now why the tube [nasogastric tube] came out and I said but she can't ask me a lot of questions (frustrated), because the sister told me she needs to insert it, I cannot explain exactly. Then it was something again (hopeless). (Participant 8)

One of the adolescent mothers narrated that she was not provided with information about how or where to lodge a complaint about the care she received in the KMC ward.

I don't know who is who, I did not know who the sisters are ...The sister in charge of the ward. The people you need to complain to or so [how to complain]. (Participant 2)

The adolescent mothers in the KMC ward experienced both formal and social interactions. Formal interactions were with the medical and nursing staff and were focused on the care of the infant. The social interactions were with the other mothers and the housekeeping staff. Sometimes the communication and interactions with the nursing staff resulted in the adolescent mothers feeling despondent. The adolescent mothers were not able to lodge a complaint because they have not been informed regarding the complaints procedure. It appeared that some of the nurses were not mindful of the phases of adolescent development and could thus not respond to the specific needs of an adolescent. This may affect whether the adolescent mother will apply the information provided to them by the nurses about the care of the infant.

4.3.2.3 Experience of providing KMC

All the adolescent mothers initially provided intermittent KMC in a neonatal ward while they were admitted to a postnatal ward. When discharged from the postnatal ward, some of the adolescent mothers continued with intermittent KMC from home or resided in the hospital's hostel. The adolescent mothers expressed that they felt anxious and uncomfortable with their first experience of providing intermittent KMC.

I thought I don't know what to do. How do I put the infant in [KMC position]. I felt very uncomfortable, but I've become accustomed to it. (Participant 1)

Most of the adolescent mothers felt happy and excited when they started continuous KMC because they were able to be with their infants for 24 hours.

Then I became happy, because everyone spoke of KMC is nice and so ... and you will be with your child and so... you will care for your child... Then I felt that now I will be with my child and so... (Participant 2)

I was so happy. I was so happy that I am going to sleep with my child (laughs). I am going to hold him, and he is going to get out of the incubator, and I get to hold him through the night and day. It was just a happy feeling. (Participant 4)

Conversely, some of the adolescent mothers felt that they would prefer to be at home, as being moved between different wards made them despondent.

I did not feel happy, but I am not going home without my baby. I have to stay, but because it is for her that I am here. She is my first priority. It's not nice, yoh. You cry every day, when can I go home. I want to go home. (Participant 7)

I feel tired of being in the hospital because I have been moved all over. It feels just for me I just want to come out, that the child must grow that we can go home. (Participant 8)

All the adolescent mothers were able to describe the normal ward routine. They however were not all orientated to the KMC ward that resulted in most of them feeling disorientated and discouraged. They were asked what information they received when they came to the KMC ward.

Nothing. I went straight to my child then they [nurses] told me that I have to stay in the ward, but my bag was not yet here. Then they showed me where I would sleep, I then sat with my baby by the incubator. They told me to go to the other ward because there is a bed available. They had said nothing else. (Participant 8)

The admission to the KMC ward could be for up to two months for some of the adolescent mothers. They complained that they were feeling bored and disheartened and this led to frustration and increased the longing for home, because there were no other activities in the ward.

Because you do nothing. You just sit with your baby. We go to church on a Wednesday night, which keeps us on a Wednesday evening, but the next day it is again back to square one, but it's very boring. (Participant 7)

Yes, they can perhaps have a small library in a room and so... mothers who want to go and read can go and read with their infants. And maybe games that you can play with the other mothers and so just to make the day pass and so we can forget about home and not stress about wanting to go home. Yes, but you must have your child with you. (Participant 2)

In the KMC ward, the adolescent mothers have to provide KMC, feed their infants as per doctors' orders and provide routine care of their infants. The adolescent mothers accepted that they had to remain in the KMC ward for the care of their infants. Some were happy to be in the ward, but became frustrated and irritated with some of the challenges in caring for their infants. Initially, one of the challenges was not being able to feed their infants.

I find it very nice because the child is near me and in my chest. It just feels we are connecting, we are together. It's not nice for me to feed him, he is still not sucking from the breast. He also does not want to drink from the cup. Now that is not nice for me. (Participant 8)

Another challenge was waking up every two hours to feed the infant and thus not getting enough sleep.

I had to stay in hospital but I knew that it was a way forward for the growth of the baby. So I was feeling happy and excited, but a bit sad because of not getting enough sleep and the next morning I'll get a headache because I did not sleep well. But during the day it's the same thing, I must feed the baby every two hours. So I am not getting enough sleep. That's the most irritating thing. Waking up every 2 hours is not easy! (Participant 3)

Some of the adolescent mothers did not always wake up every two hours to feed their infants. Some mothers relied on the nurses to wake them up. One adolescent mother recalled how another adolescent mother refused to stand up. When a mother did not wake up or was not woken up by the nurses and overslept the feeding time, it resulted in the infant not receiving a feed and not gaining weight.

The sister [nurse] called her for a while. She only opened her eyes and said, "Yes I am going to [stand up] now, sister." She then slept again. (Participant 9)

It's just the sisters who do not wake us up. Now if you are not awake [to feed] the infant does not gain weight. (Participant 9)

Even though providing KMC was challenging for some, the adolescent mothers experienced feelings of happiness and accomplishment when the baby had gained weight.

KMC is nice when the weight is picking up and you are feeding her by yourself. (Participant 3)

For many of the adolescent mothers it was their first experience of being admitted to a hospital. The feelings of being admitted to the KMC ward were overshadowed by the happy feelings of having to provide continuous KMC instead of seeing their infant in an incubator. They were however not prepared for the challenges of caring for a preterm infant, which frustrated them because they had not realised that they would be in hospital for a prolonged time.

4.3.3 Theme three: Ineffectual support

Adolescent mothers are inexperienced in the care of a preterm infant. When not admitted to a KMC ward, they reported that they would receive support at home from their mothers or an older woman. In the KMC ward, they rely on the healthcare workers to support them. Providing care to a preterm infant could be challenging. This theme of ineffectual support describes the physical, emotional and social support received by the adolescent mothers in hospital and when discharged. In the KMC ward, the adolescent mothers received ineffective and inadequate support from the nurses.

4.3.3.1 Physical support

Physical support refers to the instrumental requirements and medical care provided for both the infant and the adolescent mother while in the KMC ward. The infants receive physical support from the doctors, nurses and the other mothers in the KMC ward. The doctors provided the adolescent mothers with information about the care and condition of the infant.

The doctors will always tell you when they draw blood from your baby. I am going to do the blood test for this and that. Your baby is growing right and I'm going to do this and that. They told me a long time ago, that my baby is going to go for ultra sound on Tuesday. Ja [yes], the doctors tell you everything in detail. When you ask questions they answer. (Participant 3)

The information provided by the doctor also gave the adolescent mother an idea about when she will be discharged.

The doctors, they come every morning, so at nine o'clock, they come see the babies, if everything is still all right. They look through the babies' files, then they see if they can send you home. (Participant 9)

On the contrary, not all the mothers were compliant in following the doctors' orders. This may be due to a lack of understanding of the care of a preterm infant or may be due to being frustrated about the challenges of caring for a preterm infant. The adolescent mothers may also have recognised the feeding cues of the infant and wanted to respond to it.

To sit here and have to worry about what they [doctor] tell you what you should do with your baby. Who tells them your child is full of the 30ml [breastmilk] which the child gets? They do not know how that child's stomach is perhaps bigger, now you should just give the 30ml. Now the child cries, you as the mother cannot give more milk. (Participant 7)

The nurses provided routine observations for the infants. However, some of the adolescent mothers felt that the nurses were not always available and approachable. The availability of the nurses could be related to staff shortages.

Mostly the staff is short. I must just say for the past few weeks the staff has been short, since I have arrived here. So the sister with red [epaulettes] was working the same as the other nurses. (Participant 3)

The adolescent mothers also relied on information about the care of the infant from the other mothers. Since the nurses were not always approachable, they rather opted to ask the other mothers in the KMC ward.

The older moms? They advise when the baby is...you must feed the baby then afterwards the baby must burp. Ja [yes], sometimes we are told by the older mothers than the sisters. Because sometimes the sisters, you see the other sister have a long face, the other sister is nice and so you prefer to ask from the other mothers. (Participant 3)

All the adolescent mothers received the normal requirements of being in hospital such as meals and bedding. The adolescent mothers, because of their long stay in hospital, also received laundry services. Not all physical requirements were provided and there was a lack of medical and psychosocial care for the adolescent mother in the KMC ward. The lack of requirements and medical care for the adolescent mothers made them feel frustrated, despondent and discouraged, which further increased their longing for home. An exemplar identified was that the mothers felt they were not patients and therefore the nurses were not obliged to care for their needs.

Yes, our clothes are washed. We are given food by them. They don't have to give to us, because we are not patients here. They give me water to wash, give me a place to sleep with my baby, and that is all. (Participant 7)

But when...when you go and ask the sisters for the pads [sanitary towels] they'll say that you're not a patient, your baby is the patient so you must get your own

pads. Ja [yes], and I tried to explain that I had one but now it's out. They'll say it's not my problem. You are not the patient. Your baby is the patient. (Participant 3)

Here where I am, to be honest, where I lie now, you see the nurses, they actually have nothing to do with us. They just do the baby observations. They do not give us information or so. They just ask their questions, about the baby. That's all. (Participant 9)

Adolescent mothers who had hypertension complications during pregnancy, had to go to the postnatal ward to have their blood pressure checked. These mothers were reluctant to go because if they came back, they were told that they were irresponsible for leaving the infant.

When I was discharged, they said I must go and check my blood pressure weekly but when I came to the ward for the first time, I saw that I cannot go because I would come and my baby would be crying and the sister would be shouting, where is the mother. So I don't want to go out for a long time... And my pills are up. They've been up long time and I don't think they even know they're up... Ja [yes], my blood pressure won't be down if I stay here because I'm stressing. (Participant 3)

The adolescent mothers complained that the food was not always appetising and was supertime portions were too small, which resulted in them becoming hungry during the night due to expressing breastmilk or breastfeeding. The ward kitchen is open for the adolescent mothers to make themselves something to eat or drink, but most of them did not have any provisions with them and nothing was provided by the ward.

In the evenings, the food is less than at lunch, and the night is longer. So many nights you get hungry during the night and then you can make you tea or so in the kitchen if you have it. (Participant 8)

They also complained of backache and that the beds are uncomfortable.

The beds, they can, at least have better beds... If you lie on your back, you cannot even turn... Then it hurts my back... The bed is uncomfortable. (Participant 7)

The physical requirements and medical care was provided for the infant but not optimally for the adolescent mother. The adolescent mothers were regarded as boarders and not patients and they described that they were only there because of their infants. They were regarded as boarders because they had been discharged from the postnatal wards. They did not report

having received medical care, even though some of them had had a preterm infant due to hypertension complications, or had had a caesarean section that required wound care. All the mothers required routine postnatal care to identify any complications within the puerperium.

4.3.3.2 Emotional support

Providing KMC can be emotionally challenging for the adolescent mother due to being away from her family and partner for a long time. The adolescent mothers relayed that they felt sad or occasionally cried when they thought about home. They had not received routine postnatal care and some may have been experiencing postnatal depression or an obstetric posttraumatic stress disorder due to the nature of their complications of the pregnancy and childbirth. The adolescent mothers received emotional support from their family and partner, the nurses and the other mothers while in the KMC ward.

The family and partner of the adolescent mother are allowed to visit anytime during the day in the KMC ward. This gives the family and partner an opportunity to provide KMC while visiting and gives the adolescent mother a short break from doing KMC. The adolescent mothers all received emotional support and encouragement from their visitors.

I talk to my boyfriend. I want to come home. He just tells me I have to hold out and remain [in the KMC ward]. I'm doing it for my child. I don't have a choice.
(Participant 8)

One adolescent mother, however, did not receive visitors and she realised she had to confide in one of the nurse's. The adolescent mother had no contact with her family and was concerned about her family at home. She had wanted to get permission to go and see her family. When the adolescent mother spoke about her family, she became emotional and started to cry.

I did not want to speak to anyone, but then I realised that I cannot keep it to myself, because I will upset myself more. I had to speak with one of the nurse's, so I came here to the KMC ward and spoke to one of the nurse's. (Participant 1)

Furthermore, another adolescent mother confided in the other mothers when she was sad and tearful.

Or many times when I long for home and I feel sad and the tears roll, then I talk with the other mothers in my room. (Participant 2)

The adolescent mothers also used other ways of coping with their emotions. Some of them would isolate themselves and did not talk to anyone because they felt that they could not trust

anyone to confide in. Another adolescent mother turned to her religion and found comfort in prayer.

If I feel very sad, then I go outside and smoke and sit alone. Then I just sit there.
(Participant 2)

I talk to no one. I only speak to my God, because he's the only one that I can talk with, because I cannot talk to anyone, you cry every day, when can I go home. I want to go home. I go on my knees and ask that he must help me get through the day and take my weaknesses into his strong hand. (Participant 7)

Most of the adolescent mothers felt sad when they did not receive visitors or when their visitors left. Only one of adolescent mother confided in a nurse. The other adolescent mothers reported that they could not trust the nurses.

4.3.3.3 Social support

A social worker provides the adolescent mothers with social and financial support to ensure that when discharged, the mother is able to care for her infant.

All adolescent mothers are routinely referred to a hospital social worker because of their youth. Only five of the adolescent mothers were referred to the social worker by the nurses. The nurses did not refer the other five adolescent mothers. Some of the adolescent mothers reported that they were seen together with their mothers or guardians by the social worker.

The social worker had spoken with me and my mother about the things, with whom I will stay if I go home and all that. The children may not now if they are under age live with a boyfriend. I must have someone older to help me to look after the baby, because I'm still young. (Participant 6)

The social worker also ensures that the adolescent mother is able to provide intermittent KMC when her infant is still in an incubator. She therefore arranges a bed for the adolescent mother in the neonatal ward or hospital hostel.

When the social worker found me, she told me I needed to stay at the hospital because the baby is so small. I should be with him. Because I'm a young mother. Because I am young, and the decision that I take, she wanted to know whether it is right and so. If I accept it, or I regret it. She has also seen my mother, for me and my mother. (Participant 8)

One of adolescent mother was referred to the social worker because she was addicted to drugs during her pregnancy. The assistance from the social worker only entailed referral after discharge and there was no indication of a follow up visit.

Because I was under age, and they know if I go home, they want to know where my baby will go. The social worker has given me a paper, in Bellville is a place that will help me come off the drugs. So if he is now discharged, I must go to that place. (Participant 5)

One adolescent mother refused to be seen by the social worker as she perceived that her infant would be taken away from her because of not being able to care for her infant.

No, I do not want to see the social worker, because there is one girl who had seen a social worker here, they took her baby away from her and I refuse to see a social worker because I can care for my child. (Participant 7)

The mothers of the adolescents were also seen by the social worker to ensure that both the adolescent mother and her infant will be cared for. The adolescent mothers who were seen by the social worker reported that the experience was positive because arrangements had been made for discharge.

4.3.3.4 Discharge support

The adolescent mothers who provide KMC require discharge support and information to ensure that when discharged, their infants are not readmitted with serious illnesses that could result in the increase of infant morbidity and mortality. Discharge support, specifically socioeconomic support, was provided to the adolescent mothers who were referred to a social worker.

She [social worker] asked me if myself and my boyfriend are still together and I said we are no longer together, but that he will send me money ... and that my mother is unemployed at the moment...I am also unemployed. She had asked me if I have an ID [identity document] then I will be able to find work. I said yes when baby is older. She asked if things are well at home. I said, yes, but we are living in the backyard of someone and we do not have electricity.

Some discharge information was provided by a doctor about when the infant will be eligible for discharge.

Um, the doctor at G2, she has only said it will take a long time, it's about two months I will be here. So she will now see how the baby grows and how his condition is, and then I can be discharged if he is 1.8 [kilograms]. (Participant 8)

The nurses provided the adolescent mothers with some discharge information about the practice of KMC, the follow-up visits for the infant and one adolescent mother received information about basic neonatal resuscitation.

Yes, there is a sister who told us that if we go out from the hospital, when we are discharged, then we must do the same things we have done in the hospital...we must not take baby out of the KMC position. They [the nurses] said that the check-ups for baby will be written in the baby book. (Participant 1)

The nurse told us maybe if the baby is not breathing at home, what we must do. They say when the baby is not breathing, if he is not breathing, you must put the baby on the left side, and then you must lift the chin and check his mouth. Maybe there is something wrong, and you take him out. If he is still not breathing, you must breathe for him, and if still he is not breathing, you must put your... finger here, and you count, 1, 2, 3, and then you breathe again. (Participant 10)

Discharge support and information was provided to some of the adolescent mothers by the social worker, doctors and nurses. Adolescent mothers require discharge support and information in the KMC ward so that they will be equipped with the necessary skills to provide care to their infants when discharged. It is vitally important that all the adolescent mothers be taught to provide basic neonatal resuscitation to their infants. Unfortunately, only one adolescent mother received this information.

4.4 SUMMARY

This chapter discussed the findings of the experiences of the adolescent mothers as well as the demographic data of the participants. The experiences of 10 adolescent mothers, of different ages, ethnic groups and languages were described. Three themes and nine subthemes emerged and were discussed. The essential structure of the phenomenon of the adolescent mother's lived experiences of providing KMC are illustrated in Figure 4.1.

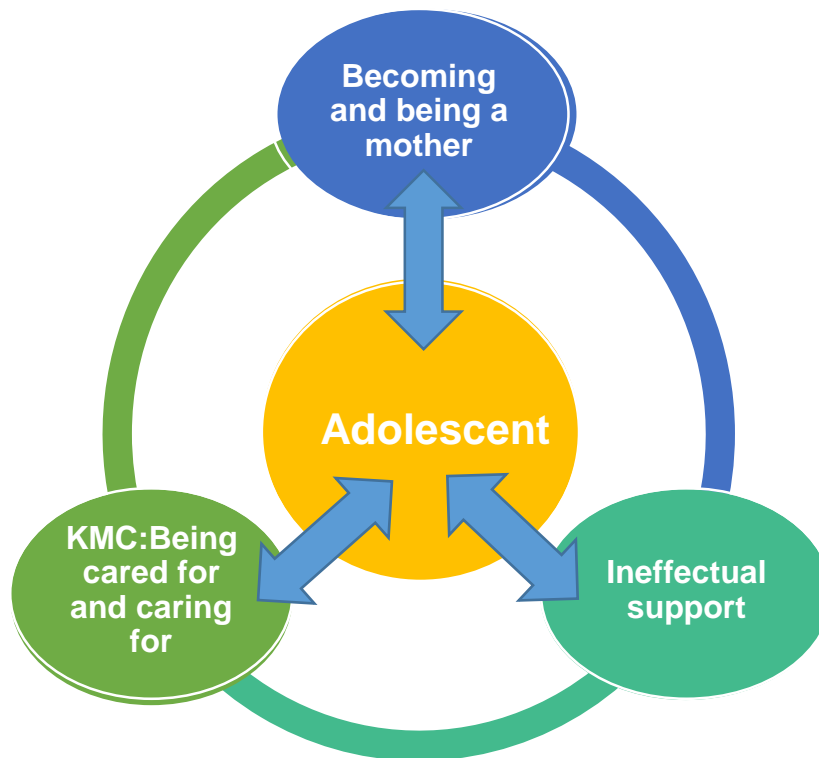


Figure 4.1. The essential structure of the phenomenon

While providing continuous KMC, the adolescent mothers began bonding with their infants and gained confidence in caring for their infants. This established a sense of motherhood and they accepted being mothers. Many of the adolescent mothers however did not receive information about KMC, the benefits of KMC and the specific care of a preterm infant. This affected the care they provided to their infants because they became frustrated with the specific care they had to provide a preterm infant such as the feeds and feeding times. The adolescent mothers had formal interactions with the doctors, social interaction with the housekeeping staff and friendly relationships with the other mothers. Most of the adolescent mothers had problematic interactions with the nurses, which occasionally developed into conflict. These conflicting interactions with the nurses resulted in the adolescent mothers feeling hopeless and disheartened. The adolescent mothers had not been informed about how to lodge a complaint. Physical support and medical care was provided for the infants but the physical and emotional support for the adolescent mother was ineffectual. This contributed to their frustration in the KMC ward and consequently affected the care provided to the infants.

4.5 CONCLUSION

The findings of the experiences of adolescent mothers on providing continuous KMC to their infants were discussed in this chapter. The unplanned pregnancies made it difficult for the adolescent mothers to accept the pregnancy. Caring for a preterm infant allowed the

adolescent mothers to gain confidence and accept motherhood. Providing KMC was emotionally challenging for the mothers because they had not expected to be in hospital for a prolonged time. The adolescent mothers required physical, emotional, social and discharge support while in hospital. They received support from the doctors, the social worker and other mothers. The support from the nurses was lacking at times and this is problematic because the nurses play an important role in ensuring that the adolescent mothers are adequately prepared to care for their preterm infant.

In chapter five the discussion, conclusions and recommendations of the research study will be presented.

CHAPTER FIVE:

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The preceding chapters provided a background and foundation to the study. The literature identified provided a background to KMC and its benefits, adolescent pregnancy and the incidence of low birth weight infants, female adolescent psychosocial development, adolescent motherhood, the experiences of nurses working in KMC wards and the experiences of mothers providing KMC in hospital. Orem's self-care theory was discussed to provide a theoretical basis for interpreting the experiences of adolescent mothers in relation to KMC and the role of the nurse in supporting the adolescent mother with self-care and care for her infant. Chapter three described the research methodology applied to the study and the findings. A qualitative descriptive phenomenological research approach, using in-depth semi-structured interviews was used to achieve the aims and objectives of this study. The researcher applied bracketing which sets aside the researcher's preconceived ideas of the phenomena. The preconceived ideas of the researcher originated from previous experiences of working in a KMC ward.

Phenomenology is a discipline that is based on the naturalistic paradigm that presumes that reality is not fixed but based on individual and subjective experiences. This contradicts the positivist paradigm, which asserts that reality is ordered, logical and rational. In phenomenology, knowledge is achieved through interactions between the researcher and the participants (Reiners, 2012:1). Husserl's phenomenological method was used to investigate meaningful experiences and allowed the researcher to examine the experiences, thereby revealing its embedded meanings and essence (Matua & Van Der Wal, 2015:23). The main methodological consideration of Husserl's descriptive phenomenology is the requirement to explore, analyse and describe a phenomenon while maintaining its richness, breadth and depth. The researcher sought to explore the 'pure form' of the phenomena by avoiding any preconceptions. This was achieved by engaging in 'phenomenological epoch' or 'bracketing' thus ignoring all existing knowledge about the phenomenon so that the essential elements of the phenomena could be described (Matua & Van Der Wal, 2015: 23). In the descriptive phenomenological approach, the researcher performed in-depth interviews to extract explicit and meaningful data from the participants by allowing the participants to describe their lived experience of providing KMC. This was achieved through open-ended and probing questions. The researcher then analysed the data and was able to describe the essential structure of the phenomena. During data collection and throughout data analysis the researcher applied bracketing, so that the preconceived ideas of the researcher would not influence the description of the experiences of the adolescent mothers.

The data analysis yielded three major themes: pregnancy and motherhood, providing KMC and support received in the KMC ward. Audio recordings were transcribed verbatim. Colaizzi's (1978) phenomenological method of data analysis was used to analysis the data (Mackenzie, 2009:27). This chapter contains a discussion of the study findings, as guided by the literature, themes and subthemes identified in the data analysis. It also contains conclusions drawn from the findings and recommendations for nursing practice.

5.2 DISCUSSION

The literature review did not reveal any specific research conducted on the experiences of adolescent mothers providing KMC for their infants in a hospital. Therefore, it has been important to conduct research on this phenomenon. The interviews were performed while the participants were providing KMC to their infants in the KMC wards at Tygerberg and Karl Bremer Hospitals. The researcher had entered the lives of the participants while they were experiencing the phenomena. This provided an authentic account of the lived experiences of the adolescent mothers. The findings of the study objectives will be discussed according to the main themes and subthemes that emerged during data collection and data analysis within the context of the literature.

5.2.1 Objective one: Explore the adolescent mothers' understanding of KMC.

The understanding of KMC includes the knowledge, the benefits and the practice of KMC. The adolescent mothers who participated in the study all had experience of providing KMC since all of them first provided intermitted KMC followed by continuous KMC. The knowledge and understanding of the participants emanated from their personal lived experience of providing KMC. It appeared that all of the adolescent mothers were comfortable with practicing KMC.

The adolescent mothers were able to comprehend, while providing continuous KMC that KMC promoted the mother-infant bond, provided heat to the infant and promoted the growth of the infant. They were also aware of the risk of infection for the preterm infant because they were expected to comply with infection prevention strategies while in the KMC ward. All of the adolescent mothers yearned to breastfeed their infants and became frustrated when they were unable to. They could not conceptualize that the sucking reflex of the preterm infant had not yet been developed. It was evident that the benefits of KMC and the specific care of a preterm infant may not have been adequately explained to the adolescent mothers. This lack of understanding compromised the care they provided to their preterm infants as they could not comprehend the specific care of a preterm infant and why the doctors and nurses prescriptions had to be adhered to.

The adolescent mothers received information or a demonstration on how to provide KMC when they started providing intermittent care and again when admitted to the KMC ward. Acquiring knowledge and understanding is a process. The WHO practical guide for KMC specifies that the mother should be educated on the benefits, practice and advantages of KMC as soon as the low birth weight infant is born (WHO, 2003:13). However, the Western Cape Government Department of Health policy and guideline stipulates that the mother should have the concept of KMC explained and demonstrated

to her in the antenatal clinic (Western Cape Government 2003:4). A study performed in South Africa found that before giving birth to their preterm infants, the majority of the mothers in the KMC ward did not receive any information on KMC. On admission to the KMC ward, they were educated about the importance of KMC and breastfeeding (Solomons & Rosant, 2012:38).

The adolescents in the present study were in the middle to late phase of adolescent development. Chulani and Gordon assert that during these phases the adolescent is capable of deductive reasoning, problem solving and abstract thinking (2014:482). They were able to deduce the benefits of KMC, but were not able to conceptualize the specific care of a preterm infant. Consequently, the care of a preterm infant was challenging for the participants.

The experience of pregnancy and delivery was physically and psychologically traumatic for these adolescent mothers. Most of the mothers had an unplanned pregnancy and complicated delivery of a preterm infant. They all acknowledged that they had no alternative but to accept the pregnancy. It was however more challenging to them to accept that they would be having a preterm infant. They were disappointed and dissatisfied when they were told that they would have a preterm infant. Their first emotions when seeing the preterm infant was hopelessness and despondence. All these emotions, from the realization of pregnancy to providing KMC, may have contributed to their inability to conceptualize and provide adequate care to their infants. The study performed in Portugal revealed that psychological adjustment during the transition to parenthood seems to be more difficult for adolescent mothers because it is related to the mother's inability to adapt to multiple changes and to achieve the developmental tasks of the transition (Figueiredo, et al., 2014:194). The multiple changes for these participants were the pregnancy, the complication of the pregnancy, the preterm delivery, the preterm infant and having to provide KMC.

5.2.2 Objective two: Understand the experiences of adolescent mothers while providing continuous KMC to their infants.

In this research study, the adolescent mothers had been practising continuous KMC in a KMC ward for five days or more. During their lived experience of providing continuous KMC, they had formal interactions with the doctors and nurses and amicable interactions with the housekeeping staff and the other mothers. This objective will be discussed under two subthemes, namely, interactions and relationships in the ward and the experience of providing KMC.

5.2.2.1 *Interactions and relationships in the ward*

The adolescent mothers interacted with the doctors, the nurses, the housekeeping staff and the other mothers in the KMC ward. Their interactions with the doctors were polite and related to the care and condition of the infant. The adolescent mothers found the interactions with the doctors meaningful, supportive and they appreciated the respect portrayed to them by the doctors and medical students. The interactions with the nurses were also formal and related to the care and condition of the infant. The nurses provided a supportive and an assisted role for the adolescent mothers. The adolescent mothers, nonetheless, revealed that the nurses could have rendered a more nurturing role by being

more engaging. Studies conducted in Sweden by Blomqvist and Nyqvist (2010:1472-1476), in Columbia by Johnson (2007:570-572) in Malawi by Chisenga, Chalanda and Ngwale (2015:305-315), and in South Africa by Solomons and Rosant (2012:33-39) also found that the mothers felt that the nursing staff were not being supportive to their needs in the KMC wards.

For most of the adolescent mothers, it was their first experience of motherhood. Although they had prior knowledge of caring for other infants at home, they had not had prior knowledge of caring for a preterm infant. The adolescent mothers relied on the nurses and the other mothers in the KMC ward to demonstrate, assist and provide affirmation in providing care for their infants. Although most interactions with the nurses were acceptable and satisfying, in some interactions the adolescent mothers felt that the nurses were unapproachable, disrespectful, critical and judgemental. Chulani and Gordon explain that the establishment of self-concept and identity are defining tasks of adolescent development (Chulani & Gordon, 2014:482). Adolescents strive for autonomy and independence, which results in a change in their interactions with older persons as the adolescent challenges authority (Chulani & Gordon, 2014:483). These interactions resulted in conflict with the adolescent feeling a loss of self-esteem and incompetence. This frustrated the adolescent mother because she was dependant on the nurses and could not make her own decisions. Consequently, the adolescent mothers may not have listened to or performed the nurse's instructions, which could have negatively affected the care of the preterm infant. They also failed to report to the nurses their own problems and emotions.

The nurse-adolescent-mother relationship is a supportive-educative relationship (George 2010:1195). Orem's nursing systems theory describes the supportive-educative nursing system as the capability of a person to perform self-care activities independently or is required to learn how to meet their therapeutic self-care demands. When applying this theory to the adolescent mother, the care of the mother-infant dyad should be considered. The adolescent mother has the ability to care for herself, but relied on the nurses to provide them with demonstrations, assistance and affirmation when providing care for their infants (George, 2010:1195).

Some of the adolescent mothers perceived that the nurses displayed a lack of empathy and understanding of the unplanned pregnancy. The adolescent mothers felt that the nurses should understand that having an infant at such a young age was not necessarily planned and that the adolescent mothers had realised that they had made a mistake by not using any contraception. Some of the adolescent mothers had goals to further their education and felt that the nurses should not criticise them but encourage and motivate them. The WHO standards for adolescent-friendly services, acknowledge that adolescents are confronted with certain barriers in health services. One of these barriers is equality. Adolescents are judged and treated unfairly and one of the main request of adolescents is that they should be treated with respect (WHO, 2012:5). The nurses working in the KMC ward should take cognisance of the developmental phases of adolescence and strive to provide adolescent-friendly services.

Interactions with the housekeeping staff and the other mothers in the ward were social. These social interactions were important for the adolescent mothers because it allowed them to forget for a moment about the challenges they were experiencing in the KMC ward. The adolescent mothers developed friendships in the ward, especially with the other adolescent mothers. The interactions with other adolescent mothers can be compared with interactions with peers. Short and Rosenthal (2008:37) explain that during the transitional period from child to adult, adolescents spend more time with peers and that peer relationships have more influence in the adolescents' lives. These peer friendships seem to help adolescents adjust to the transitional period from childhood to adulthood (Short & Rosenthal, 2008:37). The adolescent mother may have viewed herself as an adult due to the pregnancy and motherhood and may associate with the other mothers as peers. In the ward, these peer relationships were also related to the care of the preterm infant. The adolescent mothers reported that some of the nurses were unapproachable or were not available to assist them. They would then rely on the other mothers to assist them with the care of the baby. Fortunately, this advice and assistance did not cause any harm to the preterm infant as incorrect information could have been provided.

5.2.2.2 *Experience of providing KMC*

In the selected hospitals, preterm infants are first admitted to a neonatal ward or neonatal intensive care unit depending whether the infant requires specialist care. When the adolescent mother sees her infant for the first time, the infant is in an incubator. Most of the adolescent mothers declared that they felt helpless and doubted their ability to care for a preterm infant. These doubts were because they lacked self-confidence and were fearful that they would hurt their preterm infant because the infant was so small. Solomons and Rosant similarly found that the adolescent mothers felt helpless, afraid, and lacked confidence in their ability to care for their preterm infants (2012:38).

All the adolescent mothers' first engagement with KMC was providing intermittent KMC while their infants were in an incubator, except one participant who had previous experience of providing KMC. This practice is congruent with the Western Cape Government Department of Health policy and guideline that specifies that the practice of KMC, either continuously or intermittently, should start irrespective of gestational age or weight of the infant. KMC can commence if the infant is stable and receiving 40% or less oxygen (Western Cape Government, 2003:4). The nurses demonstrated and assisted the adolescent mothers to provide intermittent KMC. The adolescent mothers expressed that they were anxious and uncomfortable with their first encounter of providing intermittent KMC.

Despite these feelings, the experience of intermittent KMC was enriching for the mothers because this initiated the development of their self confidence in caring for their infants, their acceptance of motherhood and the initiation of bonding. Their self-confidence escalated and acceptance of motherhood intensified when the adolescent mothers engaged in continuous KMC. All the adolescent mothers were pleased to provide continuous KMC to their infants because they welcomed the experience of exclusively caring for their infants. The adolescent mothers proclaimed that providing continuous KMC further established the mother-infant bond. This is congruent with the

findings of Johnson (2007:570-572) who explained that the mothers felt connected to the infants and that the experience of KMC taught them how to be mothers.

Although satisfying, providing KMC and caring for the preterm infant was challenging for the adolescent mothers. The study performed in Ghana, to explore the experiences of adolescent mothers during pregnancy, childbirth, and care of their newborns found that adolescent mothers face numerous challenges that place demands not only on the young mother's stage of adolescent development, but also on their ability to adapt to the obligations of parenthood. Adolescent mothers are faced with meeting the needs of their infant as well as seeking ways to satisfy their own needs as adolescents (Gyesaw & Ankomah, 2014:779).

The most challenging experience was the feeding of their preterm infants. The adolescent mothers were all irritated about the lack of sleep in order to feed their infants two hourly through the night. They often missed feeding times during the night because they were not always woken up by the nurses or refused to wake up as they felt that they were too tired. They felt despondent feeding the infant via a naso-gastric tube or cup because they were not shown by the nurses how to perform the task effectively. They either observed from the other mothers in the ward or had to learn independently. Consequently, the infant did not always receive the required number of feeds and this affected the weight gain of the infant. When the infant had not gained weight, it affected their self-confidence. The Western Cape Government KMC policy and guideline explains that the practice of KMC dictates that the preterm infants should receive feeds as per their weight. Infants under 1500 grams should be fed at least every two hours and infants over 1500 grams at least every three hours. Infants who are unable to suck may be fed expressed breast milk via a naso-gastric tube or receive cup feeding by the mother. Staff at all levels of neonatal care should be able to educate the mother about the feeding of their infants (Western Cape Government, 2003:4). The study performed in Sweden found that the mothers felt that the nurses should actively offer mothers more assistance in the infant's care, such as tube and cup feeding, especially during the night, so that the mothers have sufficient rest and sleep (Blomqvist & Nyqvist, 2010:1478). This may not be feasible in this study because of the limited number of nursing staff allocated to the KMC ward. The researcher observed that only one nurse is allocated to a ward with eight beds. However, it would be feasible for the nurse to wake the mothers and assist those who may have difficulty with feeding the preterm infant.

Another challenge was the lengthy admission to the KMC ward. Only one adolescent mother was informed by a doctor that she would spend a minimum of two months in the KMC ward. The adolescent mothers were not emotionally prepared and became frustrated and despondent due to the lengthy stay in hospital, including the adolescent mother who had been informed. Comparably, the studies performed in Malawi and South Africa revealed that an important factor which hinders the acceptance of providing KMC is the length of stay in hospital (Chisenga, et al., 2015:311-312; Solomons & Rosant, 2012:38). The adolescent mothers felt bored in the ward due to the lack of recreational activities or presentations in the selected hospitals in this study. Similarly, the study performed in Malawi revealed that the mothers in the KMC ward felt that there was a lack of

recreational activities (Chisenga et al., 2015:311-312). The KMC ward is ideal for health promotion activities specifically for first time mothers as many opportunities exist between feeds when the mothers are unoccupied. The participants reported that the activities would keep them busy and reduce the time spent longing for home. The Western Cape Government Department of Health policy and guideline emphasizes that the KMC ward should be used as a venue for education and empowerment of mothers of preterm infants by presenting short lectures and informal discussion on KMC, mother craft, and infant and child health topics (Western Cape Government, 2003:5). Similarly, the WHO standards for adolescent-friendly services emphasize that adolescents should be provided with information and skills (WHO, 2012:3).

5.2.2.3 Objective three: Describe the physical, emotional and social support adolescent mothers experience while providing continuous KMC to their infants in a hospital.

Most of the adolescent mothers were having their first experience of motherhood and receiving support was essential for them to care for their infants. The experience of motherhood was challenging for the adolescent mothers. It was further complicated by their immaturity and having to provide KMC to a preterm infant in hospital. This objective will be discussed under three headings: physical support, emotional support and social support.

5.2.2.3.1 *Physical support*

Physical support refers to the instrumental requirements and medical care provided for both the infant and the adolescent mother while in the KMC ward. In the KMC ward, the adolescent mother requires support but she also requires support on how to care for her preterm infant.

The physical support for the mother starts with orientation to the ward. In this study, none of the adolescent mothers was orientated to the ward. This resulted in them being confused about what is expected of them but the adolescent mothers could also have perceived that they were treated with disrespect and that the staff were unfriendly. This lack of orientation could affect future interactions and relationships between the adolescent mothers and the nursing staff. The Western Cape Government Department of Health policy and guideline explains that the mother should be shown the KMC ward and informed of what is expected of her while she is in the ward (Western Cape Government, 2003:5).

The adolescent mothers complained that the beds/couches are uncomfortable causing backache. The backache caused disruption of sleep and may have contributed toward the adolescent mother's irritability and increased frustration of being in the KMC ward. This could negatively affect interactions and relationships. Three meals were provided during the day. The adolescent mothers complained that the food was not always appetising, the last meal of the day was at 17h00 and the portion of food at 17h00 is less than the other meals. During the night, the adolescent mothers are required to feed their infants. They reported that after they have expressed breastmilk, they felt hungry again. The ward kitchen was open, but they had to provide their own provisions. Some of the adolescent mothers' received food from the other mothers, but most nights they had nothing to eat. This made

them feel miserable and homesick. None of the adolescent mothers complained to the nurses about the beds or the food. This may be related to them being informed by the nurses that they were not patients but boarders and subsequently, the adolescent mothers deduced that they could not complain because they were only there for their infants. The WHO practical guide for KMC lists that the rooms in the KMC ward should have comfortable beds and chairs for the mothers. These beds, if possible should be adjustable or with enough pillows to maintain an upright or semi-recumbent position for resting and sleeping. They should have nutritious meals and a place to eat with the baby in the KMC position (WHO, 2003:13).

In the KMC ward, it is assumed by the researcher, that the adolescent mothers may not be regarded as patients but as boarders because they had been discharged from the postnatal wards. Any other requirements are not provided by the KMC ward despite the adolescent mothers still being in the postpartum period. The participants narrated that it was required of them to have their own sanitary towels, as they are not provided by the hospital. They had to approach the other mothers for this. They felt embarrassed and humiliated which may have had a negative influence on their interactions and relationships with the nurses. The adolescent mothers perceived that the nurses did not treating them fairly and did not display empathy as the nurses appeared to be unwilling to assist them. Short and Rosenthal explain that as girls transition through adolescence, they are at risk of being dissatisfied and preoccupied with their bodies (Short & Rosenthal, 2008:39). The experience of the pregnancy including the postpartum changes and not having sanitary towels may exacerbate the participant's feelings of dissatisfaction and preoccupation with their bodies. The WHO standards for adolescent-friendly care warn against an inequitable service where adolescents feel they are judged and treated unfairly (WHO, 2012:5) and thus the services should be appropriate for the needs of the adolescent (WHO, 2012:7-8). It is evident that the nurses in the KMC ward are not cognisant of the phases of adolescent development and the specific needs of them.

Some of the adolescent mothers had a preterm delivery due to hypertension complications. These adolescent mothers received hypertensive medication and discharge letters instructing them to have their blood pressure regularly monitored. In the KMC ward, no care was regular blood pressure monitoring was provided for the adolescent mother. She was required to visit the postnatal ward without her infant to have her blood pressure checked as the infants were not allowed to leave the ward. Therefore, the participants in this study reported that they did not have their blood pressures checked, as they were afraid that they would be reprimanded by the nurses for leaving their infants. Some were concerned about their blood pressure and not having stock of the prescribed medication. Others reported that since they felt well they assumed they did not have to check their blood pressure. The adolescent mothers may have not have been provided with education or lacked the insight regarding the dangers of high blood pressure. Although the nurses in the KMC ward are competent to take a blood pressure reading, they did not do so. Despite being discharged from the postnatal ward, the adolescent mothers would require routine postnatal care and wound care for those who had caesarean sections. However, no physical care was provided for any of the mothers in the KMC ward.

In this study, the concept of being a boarder as narrated by the participants was found to be disappointing and they felt rejected. The Western Cape Government Department of Health policy and guideline mentions that the mothers should be regarded as full members by the health care team, and not as patients. However, for the infants requiring continuous KMC, it is the mother who needs most of the nurses' attention for support and motivation (Western Cape Government, 2003:12). It is evident that the nurses working in the KMC wards may have completely misconstrued the guideline regarding the role of the mothers in the ward.

The doctors provided medical care and in this study provided the adolescent mother with information about the condition and care of the infant. The doctors' rounds were critical for the adolescent mother. The information they receive determined whether they had provided effective care to their infant and was a step closer to going home. One of adolescent mothers was not satisfied in following the prescriptions given by the doctor. This may have been due to a lack of understanding or lack of information given on the specific care of a preterm infant. When considering the physical support for the adolescent mother, the mother-infant dyad should be taken into account. The adolescent mother and the infant should be seen as a single unit (Western Cape Government, 2003:2). Although the adolescent mother requires physical support, she is also responsible for the physical support of her infant under the supervision of a nurse (Western Cape Government, 2003:5).

The nurses provided routine care for the infants. The adolescent mothers felt that the nurses could have provided more physical support and information about the care of the infant. When the nurses were not available, the adolescent mothers turned to the other mothers for physical support in caring for their infant. The other mothers provided assistance by holding and comforting the infant while the adolescent mother was out of the room or giving advice on the care of the infant. Similarly, Solomons and Rosant (2012:38) found that the mothers expressed a need for dedicated nursing staff to be available to provide them with continuous assistance while providing KMC.

The self-care deficit nursing theory of Orem can be applied to the adolescent mother within the KMC ward. This theory has three related parts, namely, theory of self-care, theory of self-care deficit and theory of the nursing system (George, 2010:115). The mother-infant dyad should be taken into account when applying this theory to the adolescent mother. The adolescent mother requires care but also has to provide care for her infant. The theory of self-care relates to the activities that the adolescent mother initiates and performs on her own behalf (George, 2010:115). The theory of self-care deficit identifies that nursing is required when the adolescent mother is incapable or limited in effective self-care. This theory identifies that the adolescent mother should be provided with guidance, information, physical support and psychological support (George 2010:117). The nursing system's theory describes how the adolescent mother's self-care needs will be met by the nurse, the adolescent or by both. Orem identifies three classifications of nursing systems to meet the self-care requisites of the patient, namely, wholly compensatory system, partly compensatory system, and supportive-educative system (George 2010:1195). In this study, all aspects of Orem's theory could be applied to the relationship between the nurse and the adolescent mother. The adolescent mother

is able to provide a degree of self-care, but requires the assistance of the nurse for routine postnatal care including the care of the infant. Orem asserts that the nurses should promote an environment where the adolescent mother will be empowered to be able to provide care for herself and her infant (George 2010:117).

5.2.2.3.2 *Emotional support*

The adolescent mothers, while providing continuous KMC, received emotional support primarily from the other mothers, their family and partners. One participant received emotional support from a nurse.

The adolescent mothers in this study were exposed to many emotional and psychological changes from the pregnancy to being in the KMC ward. Most of the adolescent mothers had an unplanned complicated pregnancy resulting in a preterm delivery and then the responsibility of providing KMC. During adolescent development, the adolescent may be emotionally vulnerable (Short & Rosenthal, 2008:36-38). The adolescent mothers had to face numerous challenges that placed demands not only on the young mothers' stage of adolescent development, but also on their ability to adapt to the obligations of parenthood. Adolescent mothers have to provide for the needs of their infants as well as seeking ways to satisfy their own needs as adolescents (Gyesaw & Ankomah, 2014:779). Compounding this is the likelihood that the postnatal period may be very emotional for the adolescent mother since it may be her first experience of motherhood.

The adolescent mothers in this study revealed that they felt heartbroken and sometimes tearful when they thought about home. They resented the long stay in hospital, the undesirable interactions with the nurses and the absence of care from the nurses. The visiting time in the KMC ward was flexible, which allowed the adolescent mothers to receive visitors throughout the day. The visits by family and their partners was indispensable for the participants because it provided the opportunity of companionship by their significant others. These visits provided the participants with an outlet for their frustrations and in turn, they received encouragement to persevere with providing KMC. One adolescent mother did not receive visitors and had no other alternative but to disclose to one of the nurses about her concern about her family. The other adolescent mothers revealed that they could not disclose to the nurses because they mistrusted the nurses. When the adolescent mothers had not received visitors and they felt emotional, they occasionally confided in the other mothers in the ward or mostly secluded themselves. One adolescent mother consoled herself by praying. Solomons and Rosant concur that the mothers expressed that they felt lonely and isolated from their families, especially in cases where family members were unable to visit them regularly (Solomons & Rosant, 2012:38). Chulani and Gordon explain that adolescence is marked by significant shifts in relationships and the increased demand for privacy (2014:483). This may explain the reluctance of the adolescent mothers to confide in the nurses, as they may have perceived that their conversation with the nurses may not be held in confidence. The WHO standards for adolescent-friendly services confirm that the main request by adolescents is for a service that treats them with respect and maintains confidentiality (WHO, 2012:5).

The Western Cape Government Department of Health KMC policy and guideline specifies that mothers providing KMC will require practical and emotional support (Western Cape Government, 2003:12). The dedicated KMC nurse ought to have provided this support to the mothers in the KMC ward, but this support was ineffectual (Western Cape Government, 2003: 20). The studies conducted on the experiences of mothers providing KMC does not report specifically on emotional support for adolescent mothers. In this study, the adolescent mothers have revealed that they did require emotional support, but that they could only turn to their families and partner and seldom the other mothers. It is expected that they would be able to confide in the nurses, as most of their interactions were with the nurses. However, it is evident that they felt that they could not trust the nurses and perhaps did not felt uncomfortable to approach them.

5.2.2.3.3 *Social support*

It is standard practice in the KMC ward that all adolescent mothers are referred to the social services department at the hospital to receive social and financial counselling by a social worker. This practice is implemented for the adolescents because of their youth. During this session, the social worker also invites the mother or guardian of the adolescent mother to be present.

Only four of five participants who were referred to the social services had counselling sessions with the social worker. The nurses omitted to refer the other five adolescent mothers. One of the adolescent mothers refused to be counselled by a social worker. She had recounted an incident where an adolescent mother had been counselled by a social worker and her infant had been taken away from her. The participant was therefore reluctant to be counselled by a social worker, as she feared that her infant would also be taken away. The participant may have been addicted to drugs or the circumstances at home were not conducive and therefore she perceived the social worker as a threat. Those seen by the social worker were seen in conjunction with their mothers or guardians. This practice was followed to ensure that arrangements could be made for the care of both the adolescent mother and the infant. Two of the adolescent mothers had been residing with their boyfriends during the pregnancy. One participant had been using recreational drugs and the social worker had referred her for rehabilitation following discharge. Arrangements were made for her infant to be placed in foster care with a family member. The Western Cape Government Department of Health KMC policy and guideline has been developed for all healthcare workers including social workers (Western Cape Government, 2003:3). A study conducted in Turkey mentions that pregnant adolescents may have a low socioeconomic level, tobacco and alcohol consumption, and a lack of social support (Kirbas, Gulerman & Daglar, 2016:369). Should these factors exist in pregnancy, they are more likely to persist in motherhood.

In this study social factors were identified which may contribute to the ability of an adolescent mother to provide effective care for her preterm infant. However, only four mothers received counselling from the social worker. The adolescent mothers appreciated the social support received from the social worker.

5.2.2.4 Objective four: Identify the physical, emotional and social support needs of adolescents before they are discharged from the KMC ward.

Discharge information and support was provided by the nurses, doctors and social workers. The focus of the discharge information was on the care of the infant.

One of the adolescent mothers had received discharge information from a doctor regarding when the baby would be discharged. The nurses gave information about the practice of KMC and the follow up care of the infant following discharge. Only one adolescent mother was educated on how to provide basic neonatal resuscitation to her infant.

The social worker provided socioeconomic support by enquiring from the adolescent mother and their mothers or guardians whether they would be financially able to support the infant. The adolescent mother who had used drugs during her pregnancy had been referred for counselling after discharge.

Similarly, as in objective three, the adolescent mother was regarded as insignificant and received no discharge information pertaining to their physical and emotional support. The Western Cape Government Department of Health KMC policy and guideline specifies that as soon as the mother commences with KMC, discharge information should be provided to her (Western Government, 2011:11). The practice in the KMC ward is that the infants can be discharged when they have reached a weight of 1800g. The other discharge criteria of the Western Cape Government Department of Health KMC policy and guideline is that the infant should be well, feeding adequately and the mother is confident in caring for the infant and is dedicated to providing continuous KMC at home. Infants who weigh 1800g should have daily weight checks at the nearest health facility, and those who weigh more than 1800g should have weight checks every second or third day. Should an infant not gain 15g daily or is ill, the infant should be readmitted (Western Cape Government, 2003:5-6).

5.3 LIMITATIONS TO THE STUDY

The study does not represent the experiences of adolescent mothers from all ethnic groups in the Western Cape. The selected hospitals for this study were Tygerberg and Karl Bremer Hospitals in the Tygerberg sub-district of the Cape Town Metropole in the Western Cape. In this geographical area, the population is mainly of the Coloured ethnic group. Therefore 70% of the participants were Coloured and only 30% were from the Black population. The researcher had visited the KMC wards twice a week but during the time of data collection, adolescents groups from other ethnic groups had not been admitted to the KMC wards. Subsequently the findings cannot be generalized to other ethnic groups.

This study has been the first research study the researcher has conducted. While conducting interviews with a few of the participants, the researcher found it difficult to gain detailed information from the participants as it appeared that they were reluctant to disclose information about their experiences of providing KMC. The adolescence period is characterised by an increased demand

for privacy (Chulani & Gordon, 2014:483). This may have been the reason why they were not willing to disclose detailed information. Adolescents in general do not easily open up to strangers. Probing questions, prompting and rephrasing of questions were used during the interviews, but the participants had the right to choose what information they would share.

The last step of data analysis according to Colaizzi, is validating the findings. The descriptive results should be taken to the participants for them to agree whether the analysis describes their experience. The researcher was unable to perform this final step. After data analysis had been completed, the participants had already been referred or discharged. Attempts were made to contact them telephonically but this failed. The researcher, however, acknowledges that this omission reduces the rigour of the study.

5.4 PERSONAL REFLECTION

By legislation, adolescents under 18 years are regarded as a vulnerable group. They therefore have rights that protect them. However, during their experience of providing KMC, they appear to have not been protected. They have been criticised, ignored, embarrassed and belittled by the nurses who should have been protecting them. In South Africa, nurses are obliged to adhere to the code of ethics of the South African Nursing Council. This code reminds us of our responsibilities towards patients. These responsibilities are to protect, promote and restore health, prevent illness, preserve life and alleviate suffering. These responsibilities must be carried out with the required respect for human rights, which includes cultural rights, the right to life, choice and dignity without consideration of age, colour, creed, culture, disability or illness, gender, sexual orientation, nationality, politics, race or social status. The persons in the care of every nurse must be able to trust the nurse with their health and wellbeing (Republic of South Africa, 2013:3). It is of concern that the adolescent mothers in this study have not been cared for according to this code of ethics.

This research study has allowed the researcher to explore an experience that has never been explored in South Africa. When the researcher visited the KMC wards for recruitment or for the interviews, the researcher observed that the nurses remained seated in the wards and appeared to not be assisting or providing information to the adolescent mothers about the care of their infants. Occasionally, in the presence of the nurses, the mothers asked the researcher to assist them or provide them with information. This had been echoed by the adolescent mothers who had narrated that the nurses were unapproachable and did not provide them with information. While interviewing some of the participants, the researcher could sense that the adolescent mothers did not feel free to disclose all of their experiences in the KMC ward. This could be out of fear of being reprimanded or judged by the nurses, since they are reliant on the nurses to assist them in providing care for their infants. The adolescent mothers were frustrated, despondent and miserable in the KMC ward. These emotions stemmed from the deficient communication and ineffectual support from the nurses, the lack of activities in the ward and the longing for home. They had not perceived that they would not receive any care in the KMC ward because they had received care in the postnatal ward prior to being moved to the KMC ward.

Generally, all the adolescent mothers displayed very little insight about the specific care of their preterm infants. They made assumptions but were not certain of how to provide care to their preterm infants. One adolescent mother impressed the researcher in that she expressed extreme concern that her infant would acquire an infection. The participant was aware that cross infection could occur from an ill nurse to her baby. She was also concerned that the ward was not cleaned and the bins were not emptied every day. Another adolescent mother nearly brought the researcher to tears. The researcher asked how she felt about being in the KMC ward. Tearfully, the participant revealed that she did not have a problem being in the KMC ward, but she felt unhappy in the ward because she was concerned whether her mother and siblings had something to eat. The only adolescent mother, who had had a previous experience of KMC, had a neonatal death in 2016. According to her, the infant died a cot death. She however displayed incongruent emotions while relaying the loss of her previous child. This concerned the researcher and indicated the need for the adolescent mothers to receive psychological support.

During the recruitment, the researcher observed that the adolescent mothers felt uncomfortable and apprehensive about being interviewed. The introductory question asked by the researcher was that they should explain how they felt about the pregnancy and becoming a mother. Most of the adolescent mothers explained in detail about their pregnancy, when they went into labour and the delivery of the preterm infant. After narrating their experience of the pregnancy and delivery, they became relaxed and started revealing their experience in the KMC ward. After the interviews, they expressed that they welcomed the interviews because it provided them the opportunity to discuss their experiences of providing KMC to their infants.

The researcher felt saddened and frustrated during and after the interviews. The researcher coped with these emotions by keeping a reflective journal and having debriefing sessions with the supervisor and peers.

5.5 CONCLUSIONS

The research question for this study was “what are the experiences of adolescent mothers on providing continuous KMC to their infants in a KMC ward in a hospital?” The research question could only be answered comprehensively when all the aspects of the research question was clarified.

The participants in this research study were all adolescents. During adolescence, psychosocial development of the adolescent occurs within the cognitive, identity and relationship domains (Chulani & Gordon, 2014:482). The psychosocial development therefore affects the behaviour of an adolescent and dictates the specific needs of an adolescent. The WHO has published standards for adolescent friendly-health services (WHO, 2012:1). These standards are interventions which are to be implemented to meet the specific needs and problems of adolescents. (WHO, 2012:3). In this study, it was evident that there was a lack of acknowledgement of the adolescent developmental phase and adolescent-friendly services.

The researcher found it of critical importance to describe the adolescents' experiences of their pregnancy and motherhood, which includes the caring abilities of an adolescent mother. All the adolescent mothers accepted the pregnancy and later a mother-infant bond developed when they began providing continuous KMC to their infants.

The adolescent mothers' knowledge and understanding of the practice and benefits of KMC was described. The adolescent mothers were able to practice KMC, but they lacked knowledge of the benefits of KMC and the specific care of a preterm infant. This lack of knowledge influenced the care of the preterm infant.

In the KMC ward, the adolescent mothers interacted with the healthcare workers and the other mothers in the KMC ward. Friendships developed between the adolescent mothers and the other mothers in the ward. Interactions with the doctors and the nurses were focused on the care of the infant. Interactions with the doctors were polite; however, interactions with the nurses were sometimes confrontational. The adolescent mothers found that the nurses were unfriendly.

All but one of the adolescent mothers had their first experience of motherhood. They therefore required physical, emotional, social and discharge support to be able to care for their infants and themselves. Support centred on the care of the infant. The support the adolescent mothers received in the ward was mostly ineffectual. Social and discharge support was provided by the social worker. However, the nurses omitted to refer all the adolescent mothers to the social worker, despite this being the practice in the ward. The adolescent mothers, however, received emotional support from their family and partner.

5.6 RECOMMENDATIONS

Recommendations following this research study are generated from the findings of the data analysis and the literature review conducted during the study. Six recommendations were identified. The recommendations are illustrated in the Table 5.1 below.

Table 5.1. Recommendations

Objectives	Recommendations
Understanding of KMC	<ol style="list-style-type: none"> 1. Implementation of a KMC in-service training programme for nurses in the KMC ward 2. Implementation of a KMC health promotion programme for adolescent mothers in the KMC ward
Experience of providing KMC	<ol style="list-style-type: none"> 3. Drafting and implementation of a hospital KMC policy that includes adolescent-specific care and the basic needs of adolescent mothers. 4. Implementation of Western Cape complaints service
Support received in the ward	<ol style="list-style-type: none"> 5. Drafting and implementation of a hospital KMC policy which includes holistic support of adolescent mothers
Support received for discharge	<ol style="list-style-type: none"> 6. Implementation of Western Cape KMC policy and guideline on discharge support.

5.6.1 Recommendation one: Implementation of a KMC in-service training programme for nurses in the KMC ward.

The Western Cape Government policy and guideline on KMC, specifies that nurses should provide all mothers with information about KMC. Nurses should provide this information in the antenatal clinics or after a mother delivers a preterm infant and before she starts intermittent KMC. (Western Cape Government Department of Health, 2011:10). This study found that the adolescent mothers were given information about the practice of KMC, but information about the knowledge and benefits of KMC and the specific care of a preterm infant was omitted. This knowledge should continually be reiterated in the KMC wards so that all mothers will be knowledgeable of KMC and its benefits and subsequently provide effective care to their infants. All nurses working in the KMC wards should be well informed about KMC. It was apparent in the research study that the nurses working in the KMC ward either lacked the knowledge or failed to provide the knowledge to the adolescent mothers in the KMC ward. It is recommended that in-service training sessions or workshops be held weekly. These events will provide the nurses' working in the KMC with information on any new policies and guidelines. In addition it will refresh their knowledge about topics that are specific to the KMC ward such as the specific care of preterm infants. A programme with dates and topics should be developed for advanced attendance planning.

5.6.2 Recommendation two: Implementation of a KMC health promotion programme for adolescent mothers in the KMC ward.

The study has found that the adolescent mothers are given information about the practice of KMC, but information about the knowledge and benefits of KMC and the specific care of a preterm infant was omitted. This knowledge should continually be repeated in the KMC wards so that all mothers gain knowledge of KMC and its benefits. Similarly, the information about the specific care of preterm infants should also be given to mothers who are providing KMC. The Western Cape Government Department of Health KMC policy and guideline also suggest that while the mothers are in the KMC ward they should receive health promotion presentations (Western Cape Government, 2011:11). The reiteration of the knowledge can be presented in an educational video which can be played to the adolescent mothers in the ward. This research study has revealed that no activities or health promotion presentations occurred in the KMC ward. These presentations will not only reduce the boredom and longing for home, but could empower the mothers in the KMC ward. It is recommended that a health promotion checklist is developed and kept in the folders of each mother. Once the information has been presented, the checklist could be signed by the presenter. A daily schedule of presentations could be developed for the ward so that the repetition of presentations is minimal. Presentations could be adolescent-friendly by having interactive group discussions, playing a board game with KMC information questions or having a quiz with small inexpensive prizes for correct answers after a video has been seen.

5.6.3 Recommendation three: Drafting and implementation of a hospital KMC policy that includes adolescent-specific care and the basic needs of adolescents.

At the selected hospitals, no hospital KMC policy had been drafted. The hospitals implement the Western Cape Government Department of Health KMC policy and guideline, which does not acknowledge the specific care of an adolescent mother who provides KMC to her infant. It was apparent in this study, that the nurses working in the KMC ward either had a lack of knowledge or failed to implement their knowledge in light of the phases of adolescent development. The application of the knowledge could have minimised the confrontational interactions between the adolescent mothers and the nurses. The WHO standards for adolescent friendly health services are to be implemented to address the needs and problems that adolescents are experiencing with health services. It explains the expectations of the adolescent mothers of the services and healthcare workers (WHO, 2012:5). Particular to this study is the judgemental attitude of the nurses and the lack of privacy and confidentiality as perceived by the adolescent mothers. A hospital KMC policy should be drafted at all hospitals where continuous KMC is provided by adolescent mothers. This policy should include a section about the developmental stages of adolescence and adolescent-friendly services so that all nurses working in the KMC wards will be knowledgeable and apply the knowledge thereof when providing care to adolescent mothers.

The adolescent mothers complained that the beds were not comfortable resulting in backache and the meals were inadequate as they became hungry during the night time feeds of the infant. The researcher observed that there were beds in one ward and couches in the other ward. Both the beds and couches were not adjustable and the adolescent mothers did not receive extra pillows. In addition, the beds and couches were narrower than a normal size single bed. The WHO practical guide for KMC mentions that the rooms in the KMC ward should have comfortable beds and chairs for the mothers. The beds should be adjustable or with enough pillows to maintain an upright or semi-recumbent position for resting and sleeping (WHO, 2003:13). The KMC ward only provided three main meals. Although the kitchen was available for the adolescent mothers, they had to have their own provisions. The WHO practical guide for KMC asserts that the mothers in the KMC ward should be provided with nutritious meals but does not specify how many meals. The hospital KMC policy should make provision for comfortable beds and three main meals with two small meals at 21h00 and 05h00 such as a sandwich and tea/coffee. Alternatively, provisions could be made available for the adolescent mothers to have two small meals. These provisions could be regulated by the nurses working in the KMC ward.

5.6.4 Recommendation four: Implementation of Western Cape complaints service.

In this study, the researcher observed and one participant commented that there was no information available in the KMC ward about how to lodge a complaint. In 2012, the Western Cape Department of Health announced a pilot project to address patient complaints in health services (Western Cape Government, 2012:1). Patients would be able to telephone, text or e-mail a complaint and receive a same day response. Posters were displayed in the health facilities in the three main languages of the Western Cape, namely English, Afrikaans and isiXhosa. Initially only eight health facilities were

selected for the pilot project, but the project was later implemented in all health facilities in the Western Cape. In the selected hospitals, the researcher observed that there were no posters displayed regarding the complaints service. In this study, the adolescent mothers did not lodge a complaint with the nurses, because they found that the nurses were unapproachable. The posters regarding the complaint service should be displayed so that the adolescent mothers could complain anonymously.

5.6.5 Recommendation five: Drafting and implementation of hospital KMC policy which includes holistic support of adolescent mothers.

In the KMC ward, the focus of care was primarily on the preterm infant. The only support the adolescent mothers received was social support from the social workers, once referred by the nurses. However, some mothers refused to attend the consultation. The Western Cape Government KMC policy and guideline specifies that support should be provided to the mother-infant dyad while in the KMC ward and following discharge. The policy and guideline further explains that the mother should be responsible for the care of the infant under the supervision of the nurse (Western Cape Government, 2011:10-11). The guideline focuses on the specific care and support of the infant but does not mention the specific support for the adolescent mother. However, by providing care to the mother-infant dyad, it encompasses all types of support for the mother and infant. It is recommended that the hospital policy including a section on holistic support for the adolescent mother. Furthermore, it has been identified in this study that the adolescent mothers may require psychological support that should be provided by a trained counsellor. Pregnancy during adolescence could involve not only medical but also psychosocial problems (Kirbas, et al., 2016:369). Caring for a premature or low birth weight infant may pose several challenges to adolescent mothers because the adolescent mother has to cope with the developmental changes of becoming an adult and motherhood concurrently (Figueiredo, et al., 2014:194). The holistic support in the hospital policy should specify the physical, emotional and psychosocial support of the adolescent mothers in the KMC ward. In-service training sessions or workshops should be held with the nurses working in the KMC wards to update them on the new policies and guidelines.

5.6.6 Recommendation six: Implementation of the Western Cape KMC policy and guideline on discharge support for adolescent mothers in the KMC ward.

In this study, some of the adolescent mothers received limited discharge support from the doctors and nurses. The social worker also contributed to discharge support by enquiring whether the adolescent mother had social and financial support for herself and her infant. The Western Cape Government Department of Health KMC policy and guideline indicates that discharge support should be discussed with the mothers from the commencement of KMC (Western Cape Government, 2011:11). This discharge support includes educating the mothers about continuing KMC at home. The criteria for discharge for both the infant and the mother and follow up care for the infant is also described (Western Cape Government Department of Health, 2003:5-6). All mothers should be trained in providing basic neonatal resuscitation (Western Cape Government, 2011:48). In this study,

only one adolescent mother received basic neonatal resuscitation training. It is recommended that the nurses working in the KMC ward should receive an update on the Western Cape Government Department of Health KMC policy and guideline.

5.7 FUTURE RESEARCH

The areas for future research that can be explored are:

- The role of the father in the provision of KMC to the preterm infant when the mother is unable to.
- The effects of the implementation of a health promotion programme for adolescent mothers providing KMC in a hospital KMC ward.
- The effect of the introduction of an in-service programme for nurses working in the KMC ward.
- Exploring the experiences of adolescent mothers following discharge from the KMC ward
- The role of the dedicated KMC nurse in the KMC ward.
- Understanding the factors influencing the decisions of an adolescent to plan a pregnancy.

5.8 DISSEMINATION

A copy of the study findings will be provided for the selected hospitals where the research was conducted. This report will also provide recommendations for improvement of the service. The selected hospitals could then ascertain the feasibility of the recommendations.

The researcher plans on submitting an article in an accredited peer-reviewed journal and the thesis will be published electronically through the university via SUN Scholar. The researcher aims to present the study on various platforms, such as Department of Health Research Day, Stellenbosch University Research Day and congresses. Furthermore, because no literature could be found on the experiences of adolescent mothers providing continuous KMC, the researcher will also avail herself if invited to present on any other platforms.

5.9 CONCLUSION

In this chapter, the findings of the study were discussed in relation to the study objectives. The research question was answered by providing a thorough exploration of the research findings. The findings demonstrated that adolescent mothers providing KMC to their infants in a KMC ward in a hospital lack the understanding of KMC, its benefits and the specific care of a preterm infant. The adolescent mothers are not provided with adolescent-friendly services. Consequently, their individual needs and problems are not provided for and they are left feeling frustrated and despondent. This resulted in conflict with the nurses. Social support is provided for adolescent mothers. Ineffectual physical, emotional and discharge support is provided for the adolescent mothers while they are in the KMC ward. The research study also found that the adolescent mothers may require psychological support while in the KMC ward.

Within the KMC ward, the mother-infant dyad should be acknowledged. The adolescent mother should be empowered to provide care for herself and her infant. This can be achieved by creating a

supportive-educative environment wherein the adolescent mother receives the necessary information guidance and support to develop personally and thereby gaining self-confidence to care for herself and her infant while in the ward and follow discharge.

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APPENDICES

APPENDIX 1: ETHICAL APPROVAL FROM STELLENBOSCH UNIVERSITY



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jou kennisennoot • your knowledge partner

Approval Notice Response to Modifications- (New Application)

25-Oct-2016
Robertson, Anneline A

Ethics Reference #: S16/07/112

Title: The experiences of adolescent mothers on providing continuous kangaroo mother care to their infants in a hospital

Dear Miss Anneline Robertson,

The **Response to Modifications - (New Application)** received on **10-Oct-2016**, was reviewed by members of **Health Research Ethics Committee 1** via Expedited review procedures on **25-Oct-2016** and was approved.
Please note the following information about your approved research protocol:

Protocol Approval Period: **25-Oct-2016 -24-Oct-2017**

Please remember to use your **protocol number** (S16/07/112) on any documents or correspondence with the HREC concerning your research protocol.

Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review:

Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Translation of the consent document to the language applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Helene Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics

approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and documents please visit: www.sun.ac.za/rds

If you have any questions or need further assistance, please contact the HREC office at .

Included Documents:

Permission letter.pdf

Information leaflet.pdf

Biographical sketch T Crowley 2015.pdf

20161010 CV of A Robertson

20161010 MOD HREC Modifications Required letter

20161010 MOD Cover letter

Checklist Robertson.pdf

20161010 MOD Institutional permission letter

Investigator Declaration V4.2 (Eng)_Supervisor.pdf

CV A Robertson.pdf

Proposal.pdf

Investigator Declaration A Robertson signature.pdf

Synopsis.pdf

HREC Application Robertson.pdf

Sincerely,

Franklin Weber

HREC Coordinator

Health Research Ethics Committee 1

Investigator Responsibilities

Protection of Human Research Participants

Some of the responsibilities investigators have when conducting research involving human participants are listed below:

1. Conducting the Research. You are responsible for making sure that the research is conducted according to the HREC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research.
2. Participant Enrolment. You may not recruit or enrol participants prior to the HREC approval date or after the expiration date of HREC approval. All recruitment materials for any form of media must be approved by the HREC prior to their use. If you need to recruit more participants than was noted in your HREC approval letter, you must submit an amendment requesting an increase in the number of participants.
3. Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the HREC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least fifteen (15) years.
4. Continuing Review. The HREC must review and approve all HREC-approved research protocols at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period**. Prior to the date on which the HREC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in HREC approval does not occur**. If HREC approval of your research lapses, you must stop new participant enrolment, and contact the HREC office immediately.
5. Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the HREC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written HREC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the HREC should be immediately informed of this necessity.
6. Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research-related injuries, occurring at this institution or at other performance sites must be reported to the HREC within **five (5) days** of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the HREC's requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Health Research Ethics Committee Standard Operating Procedures www.sun025.sun.ac.za/portal/page/portal/Health_Sciences/English/Centres%20and%20Institutions/Research_Development_Support/Ethics/Application_package All reportable events should be submitted to the HREC using the Serious Adverse Event Report Form.
7. Research Record Keeping. You must keep the following research-related records, at a minimum, in a secure location for a minimum of fifteen years: the HREC approved research protocol and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the HREC
8. Reports to the MCC and Sponsor. When you submit the required annual report to the MCC or you submit required reports to your sponsor, you must provide a copy of that report to the HREC. You may submit the report at the time of continuing HREC review.
9. Provision of Emergency Medical Care. When a physician provides emergency medical care to a participant without prior HREC review and approval, to the extent permitted by law, such activities will not be recognised as research nor will the data obtained by any such activities should it be used in support of research.
10. Final reports. When you have completed (no further participant enrolment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the HREC.
11. On-Site Evaluations, MCC Inspections, or Audits. If you are notified that your research will be reviewed or audited by the MCC, the sponsor, any other external agency or any internal group, you must inform the HREC immediately of the impending audit/evaluation.

APPENDIX 2: PERMISSION OBTAINED FROM INSTITUTIONS / DEPARTMENT OF HEALTH



STRATEGY & HEALTH SUPPORT

Health.Research@westerncape.gov.za

tel: +27 21 483 6857; fax: +27 21 483 9895

5th Floor, Norton Rose House, 8 Riebeeck Street, Cape Town, 8001

www.capegateway.gov.za

REFERENCE: WC_2016RP40_442

ENQUIRIES: Ms Charlene Roderick

Stellenbosch University

Matiesland

Private Bag X1

Cape Town

7606

For attention: Mrs Anneline Robertson, Mrs Talitha Crowley

Re: The experiences of adolescent mothers on providing continuous kangaroo mother care to their infants in a hospital.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact following people to assist you with any further enquiries in accessing the following sites:

Karl Bremer Hospital

Dr Linda Naude

021 918 1222

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).

3. In the event where the research project goes beyond the *estimated completion* date which was submitted, researchers are expected to complete and submit a progress report (**Annexure 8**) to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
4. The reference number above should be quoted in all future correspondence.

Yours sincerely



AS HAWKRIDGE

DR A HAWKRIDGE

DIRECTOR: HEALTH IMPACT ASSESSMENT

DATE: 17 / 11 / 2016.



TYGERBERG HOSPITAL
REFERENCES: Research Projects
ENQUIRIES: Dr GG Marinus
TELEPHONE NO.: 021 938 5752

Ethics Reference: S16/07/112

TITLE: The experiences of adolescent mothers on providing continuous kangaroo mother care to their infants in a hospital.

Dear Miss Anneline Robertson

PERMISSION TO CONDUCT YOUR RESEARCH AT TYGERBERG HOSPITAL

1. In accordance with the Provincial Research Policy and Tygerberg Hospital Notice No 40/2009, permission is hereby granted for you to conduct the above-mentioned research here at Tygerberg Hospital.
2. Researchers, in accessing Provincial Health Facilities, are expressing consent to provide the National Health Research Department with an electronic copy of the final feedback within six months of completion of research. This can be submitted to the Provincial Research Co-Ordinator (Health.Research@westerncape.gov.za)

A handwritten signature in black ink, appearing to be "GG Marinus", written over a horizontal line.

DR GG MARINUS
MANAGER, MEDICAL SERVICES [RESEARCH CO-ORDINATOR]

A handwritten signature in black ink, appearing to be "D Erasmus", written over a horizontal line.

DR D ERASMUS
CHIEF EXECUTIVE OFFICER

Date: 10 April 2017


Administration Building, Francie van Zijl Avenue, Parow, 7500
Tel: +27 21 938 5752 Fax: +27 21 938 4890

Private Bag X3, Tygerberg, 7505
www.capegateway.gov.za

TYGERBERG HOSPITAL

Ethics Reference: S16/07/112

Title: **The experiences of adolescent mothers on providing continuous kangaroo mother care to their infants in a hospital.**

BY 
An authorized representative of Tygerberg Hospital

NAME Dr DS Erasmus

TITLE CEO

DATE 10 April 2017

APPENDIX 3: PARTICIPANT INFORMATION LEAFLET AND DECLARATION OF CONSENT BY PARTICIPANT AND INVESTIGATOR

ADOLESCENT (18 – 19 YEARS) INFORMATION LEAFLET

TITLE OF THE RESEARCH PROJECT: The experiences of adolescent mothers on providing continuous kangaroo mother care to their infants in a hospital.

REFERENCE NUMBER: S16/07/112

WC- 2016RP40-442

PRINCIPAL INVESTIGATOR: Anneline Robertson

ADDRESS: Faculty of Medicine and Health Sciences: Division Nursing
Francie van Zijl Drive
Tygerberg 7500
South Africa

CONTACT NUMBER: 084 813 0374

Dear Adolescent

My name is Anneline Robertson and I would like to invite you to take part in a research project. This project aims to explore the experiences of adolescent mothers on providing continuous kangaroo mother care to their infants in a hospital.

Please take some time to read the information presented here, which will explain the details of this project. Please ask questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Your participation is **entirely voluntary** and you are free to decline this invitation to participate. If you decline, it will not affect you negatively in any way whatsoever. If you do agree to take part, you are free to withdraw from the study at any point.

This study has been approved by the **Health Research Ethics Committee at Stellenbosch University and this hospital**. The study will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, the South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

This study aims to explore the experiences of adolescent mothers on providing continuous kangaroo mother care to their infants in a hospital. The study will be conducted at the kangaroo mother care wards at Tygerberg and Karl Bremer hospitals. The knowledge of this experience will describe the physical, emotional and social support needs that adolescent mothers require while in hospital and when discharged.

Ten to 15 adolescent mothers will be selected from different cultural backgrounds, different levels of education and speaking at least one of the three main languages of Afrikaans, English or Xhosa.

Why have you been invited to participate?

You have been invited to participate because you are between the ages of 18 and 19 years and you have been admitted to the kangaroo mother care ward for at least five days.

We think that you could make a valuable contribution to identifying the physical, emotional and social support needs that adolescent mothers require while in hospital and when discharged from the kangaroo mother care wards.

What will your responsibilities be?

You will be asked to participate in a face-to-face interview lasting 40 to 90 minutes. The interviews will be audiotaped and held in a private, quiet room at a time suitable for you. A follow up interview will be done if more information is needed. In the interview you will be asked to share your experiences of providing continuous kangaroo mother care to your infant.

Will you benefit from taking part in this research?

Participation in this study will be of no direct personal benefit to you. The information from this study will help to identify the physical, emotional and social support needs that adolescent mothers require while in hospital and when discharged from the kangaroo mother care wards.

Are there any risks involved for you in taking part in this research?

The interviews will last between 40 to 90 minutes and this may be an inconvenience to you. Also you may become emotionally distressed during the interview. Should this occur, the interview will end and you will be referred for counselling to the social services department at the hospital.

If you do not agree to take part, what alternatives do you have?

Participation in the study is voluntary and you can withdraw at any time. Your care will not be affected in any way if you choose not to participate in the study.

Who will have access to your medical records or information?

All information will be treated confidentially and be protected. Only the researcher and study supervisors will have access to your information. All audio recordings and transcripts will be kept in electronic password-protected folders.

Numbers will be allocated to all participants and data collected will not reflect any personal details of the participants. All interview data will be allocated a number and for the duration of the research study all participants will be referred to by a number. Your identity will therefore remain anonymous.

What will happen in the unlikely event of some form of injury occurring as a direct result of your taking part in this research study?

We do not anticipate that you will suffer any injury or harm as a result of taking part in the study. If you become emotionally distressed during the interview you will be referred to the social services at the hospital.

Will you be paid to take part in this study and are there any costs involved?

You will not be paid to take part in the study but **you will receive a hamper of baby products of R50.00 for participating in the study.** Refreshments will be provided during the interviews. There will be no costs involved, if you take part.

Is there anything else that you should know or do?

You may contact Anneline Robertson on cell phone number 076 945 3993 if you have any queries or encounter any problems.

You may contact the Health Research Ethics Committee on telephone number 021 938 9207 if you have any concerns or complaints that have not been adequately addressed by the researcher.

You will receive a copy of this information and consent form for your own records.

If you are willing to participate in this study, please sign the attached Declaration of Consent.

Yours sincerely

Anneline Robertson (Principal Investigator)

Declaration by adolescent 18-19 years

By signing below, I

(Full names and surname)

agree to take part in a research study entitled: The experiences of adolescent mothers on providing continuous kangaroo mother care to their infants in a hospital. **I declare that:**

- I have read the attached information leaflet and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I consent to the audio recording of any interviews

.....
Signature of adolescent

.....
Signature of witness

Signed at..... (place)

On (Day)..... (Month)..... (Year).

Declaration by investigator

I declare that:

- I explained the information in this document to
.....
- I encouraged her to ask questions and took adequate time to answer them.
- I am satisfied that she adequately understands all aspects of the research, as discussed above

Signed at (place) on (date)

.....
Signature of investigator

.....
Signature of witness

ADOLESCENT PARTICIPANT INFORMATION LEAFLET AND ASSENT FORM (15 – 17 years)



TITLE OF THE RESEARCH PROJECT:

What care and support is provided to teenage mothers who are admitted to the kangaroo mother care ward to provide continuous kangaroo mother care to their infants.

RESEARCHER'S NAMES: Anneline Robertson

ADDRESS: Faculty of Medicine and Health Sciences: Department of Nursing and Midwifery
Francie van Zijl Drive
Tygerberg 7500
South Africa

CONTACT NUMBER: 0848130374

What is research?

Research is something we do to find new knowledge about the way things and people work. We use research projects or studies to help us find out more about disease or illness. Research also helps us to find better ways of helping or treating teenagers who are sick.

What is this research project all about?

This research project is looking at the care and support that is provided to teenage mothers who are admitted to the kangaroo mother care (KMC) ward to provide continuous KMC to their infants. This research project will provide information that can be used to ensure that teenage mothers receive better care and support while in the KMC ward.

Why have you been invited to take part in this research project?

You have been invited to participate because:

- You are 15- 17 years old and have been admitted to the KMC ward to provide continuous KMC to your infant.
- You have been in the ward for more than 5 days.

Who is doing the research?

My name is Anneline Robertson. I am working as a lecturer at Stellenbosch University. I am currently a second year master's degree student and this research study is my topic for the master's degree. I am interested in the care and support that is provided to teenage mothers when they are admitted to provide continuous KMC to their infants.

What you will do in this study?

You will be interviewed for at 40 - 90 minutes. The interview will be held in a private room so that the ward staff will not know what was said during the interview. During this interview you will be asked certain questions to find out about the care and support you receive while you are in the ward. The interview will be recorded and typed. The information gained from the interview may be checked with you at a later stage to ensure that the information is correct.

Can anything bad happen to you?

You may feel uncomfortable when you are asked certain questions and you can tell me if you do not feel comfortable to speak. You do not have to answer questions that you do not want to answer. I will not tell your caregivers (parents or legal guardians) or the health workers about the things we have talked about. If you feel uncomfortable, you will be allowed to stop the interview and you will be referred to the social services at the hospital.

Will anything good happen?

You will be able to talk about the care and support you receive in the KMC ward. This will allow you to speak about what makes you feel angry and sad but also what makes you feel happy. The information obtained from all the adolescent mothers can be used by nursing staff to ensure that teenage mothers receive better care and support while in hospital. For your time you will receive a hamper of baby products of R50.00

Will anyone know I am in the study?

The ward staff will know that you are taking part in this study. I also need to ask your caregiver (parent or legal guardian) if he/she agrees that you can take part in this study. The interview will be held in a private room so that the ward staff will not know what was said during the interview. I will not tell the ward staff or your caregiver (parent or legal guardian) about the things you have talked about. Our discussion will be just between you and me, and nobody else will know that it was you who said certain things.



Who can you talk to about the study?

You can talk about the study with ward staff (nurse or doctor) and you can contact me (Anneline Robertson) on my cell phone number 0848130374 if you have any questions about the study.

What if you do not want to take part?

You do not have to be a part of the study if you do not want to. The ward staff and your caregiver (parent/s or legal guardian/s) will not be mad at you if you do not feel like taking part.

Even if your caregiver (parent/s or legal guardian/s) have said you may take part, you do not have to take part if you do not want to. If you agree to take part and later feel that you do not want to take part anymore, you can just tell me how you feel and stop participating in the study without any problem.

Do you understand this research study and are you willing to take part in it?

☐ YES

☐ NO

Can the researcher make an audio recording of the interview?

☐ YES

☐ NO

Has the researcher answered all your questions?

☐ YES

☐ NO

Do you understand that you may withdraw from the study at any time?

☐ YES

☐ NO

Name and Surname of adolescent.....

Signature.....

Signed at..... (place)

On (Day)..... (Month)..... (Year).

Appendix 4: Interview guide

Section A

Demographic information to be completed by researcher

Adolescent number	
Age	
Culture	
Level of education	
Single/ Married/Partner / No response	
Gravidity and parity	
Gestation of pregnancy when baby was born	
Date of birth and birth weight of baby	
Birth weight today	
Type of delivery	
Duration of continuous KMC	

Section B

1. Introductory questions

- a) What was your experience of being pregnant and delivering a baby?
- b) How do you feel about being a mother?

2. The adolescent mother's understanding of KMC.

Probes:

- a) What is your understanding of KMC?
- b) What do you like or do not like about KMC?

3. Understanding the experiences of adolescent mothers while providing continuous KMC to their infants.

Probes:

- a) How did you feel when you were told that you had to be admitted to the KMC?
- b) What information/ items was given to you when you were admitted to the ward?
- c) Explain to me the ward routine and other activities in the ward?
- d) Explain to me your interactions with the other mothers in the ward? (Adult and adolescent mothers)
- e) How do you feel about the other mothers in the ward?
- f) Explain to me your interactions with the staff? (nursing staff, medical staff, cleaners and social worker)
- g) How do you feel about the staff? ((nursing staff, medical staff, cleaners and social worker)
- h) Tell me about visiting time?
- i) How do you feel about being in the ward?

4. Describe the physical, emotional and social support adolescents experience while providing continuous KMC to their infants in a hospital.

Probes

- a) Who helps you in the ward and in which way? (physical support)
- b) Who supports you in the ward and in which way? (social and emotional support)
- c) Do you think that you could have received more help and support?
- d) What do you think could make the time in the ward better for you?
- e) What information was given to you for when you will be discharged?

APPENDIX 6: EXTRACT OF TRANSCRIBED INTERVIEW

Participant 4 Speaker Key: IV- Interviewer

FI- Participant

IV Okay, so when they told you, you have to do KMC, what did you think?

FI I was so happy. I was so happy that I am going to sleep with my child [laughs]. I am going to hold him, and he is going to get out of the incubator, and get to hold him through the night and day.

IV So what do you know about or what did they tell you, what is KMC?

FI Here I have learnt that they are teaching us to be on our own, how to take care of our children, how to feed our children, like how to take care of ourselves when we are mothers.

IV Okay, so if somebody comes here and they ask you what are you doing, what is KMC, what do you do for your baby?

FI I am learning how to be a mother to my child.

IV Yes, but I'm now referring to, where is your baby when you're doing KMC?

FI Where is my baby?

IV What is different about KMC and a baby that is normal size?

FI Oh, the difference is that when the baby is normal size, you don't get to lack some things that they have to eat, like at different times. Like, they have to gain weight to live a normal life. They get to be such things that prematures get, you see? Prematures get sick firstly, you see. They can get infection from the air and stuff, unlike a normal child of nine months. A premature must be guided in a supportive way, in a gradual way, because they get sick, you see.

IV Yes. So you've told me now that the premature babies can get sick quickly.

FI Yes.

IV You've also told me they need to eat certain times. What other things are important that the premature baby needs?

FI They need to be taken care of.

IV So what do you think, why do you think you need to keep baby against your skin?

FI To keep the baby against your skin is to let them know their mother, and it helps them to grow fast because they get attached to their mother.

IV Yes. So you've now told me a little bit about what KMC is, and you've told me you are so happy because you are now and you are KMC baby because baby is with you all the time and you are learning so much about how to be a mom. Is there anything that you don't like about the KMC?

FI It's only waking up [laughter]. It's only waking up at four o'clock and 12 o'clock.

IV So how often must you wake up?

FI You see, I'm feeding my baby every three hours, so maybe let's say if I fed him at one o'clock, I'm again going to feed him at four o'clock, you see. So, that happens frequency in three hours and three hours.

IV Okay, so do you wake up yourself, or do the nursing staff wake you up?

FI Oh, the nurses do their job, because you can sleep mos [chuckles]. They come and wake us up. They are so caring here, because we will be sleeping, and then the nurses will be waking me up.

IV Alright, so the information that you got about KMC, did you just see it, or did you hear people talking about it, or did somebody tell you about it?

FI Nobody told me about it.

IV Okay, so you just saw?

FI I just saw how, yes.

Lize Vorster
Communication

To whom it may concern

This letter serves as confirmation that I, Lize Vorster, performed the technical formatting of Anneline Robertson's thesis.

Technical formatting entails complying with the Stellenbosch University's technical requirements for theses and dissertations, as presented in the Calendar Part 1 – General or where relevant, the requirements of the department.

Yours sincerely



Lize Vorster
Language Practitioner

Vygie street 9, Weigevonden Estate, Stellenbosch, 7600 * e-mail: lizevorster@gmail.com * cell: 082 856 8221

CONFIDENTIALITY AGREEMENT

I, the undersigned **Leigh Story**

1. herewith undertake that all information disclosed or submitted, either orally, in writing or in other tangible or intangible form by Anneline Robertson to me, or made available to me, or details of Anneline Robertson' business or interest of which I may become aware of in respect of transcriptions being done by myself for Anneline Robertson, to keep confidential and not to divulge to anyone for which Anneline Robertson did not give written consent;
2. guarantee that I will apply the information, detail or knowledge in **clause 1** only for the purpose of the intended research;
3. indemnify Anneline Robertson against any claims that may be instituted against Anneline Robertson, amounts that may be claimed or losses that Anneline Robertson may suffer in consequence of a violation by me of any provision included in this agreement.

SIGNED at Cape Town on 7th December 2017